Promotor	Prof. dr. Sigrid Sterckx Vakgroep Wijsbegeerte en Moraalwetenschap
Copromotor	Prof. dr. Guido Pennings Vakgroep Wijsbegeerte en Moraalwetenschap

Decaan	Prof. dr. Marc Boone
Rector	Prof. dr. Anne De Paepe

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UNIVERSITEIT GENT

Faculteit Letteren & Wijsbegeerte

Pieter Bonte

Freedom In The Flesh

Physically shaping oneself and one's future children – an ethical-existential critique

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Summary

Against the background of the contemporary debate on 'human enhancement' – the use of biotechnology to enhance human properties and powers – this dissertation focuses on the underlying practice of people using physical means to shape their own bodies and those of their future offspring. I introduce this practice in the introductory chapter, where I provide a state of the (often deeply antagonistic) debate. I also present a conceptual clarification of the intrinsic characteristics of a 'physical self-shaping intervention' and an 'enhancement intervention.'

Chapter Two discusses how physical self-shaping has been envisioned and practiced throughout human history. With this I hope to show, on the one hand, how the current debate is a new round of discussion on timeless questions, and on the other hand, how exactly the current debate contains elements of novelty nonetheless. I also present a taxonomical exploration of the many directions physical self-shaping interventions can take, in order to correct tendencies to reduce the debate to one about (oppressive) norms of performativity and perfection.

I focus on how such self-shaping liberties can loosen the sense of having a fated nature: a default set of given limitations, talents and character traits that provide a spontaneous drive and specific shape to one's existence. As self-shaping liberties increase, our identity seem to become more volatile, more voluntary. In this increasingly 'protean' predicament we find ourselves in, we must confront two existential-ethical problems which take center stage in this dissertation.

Firstly, it can generate confusion about who one is and what kind of personal development one ought to pursue. This problem and assorted ones are pursued in Chapter Three, where I examine the deep existential attachment to 'talent' that is widespread in the sports world, and how this relates to the equally widespread belief that doping is an intrinsic violation of the spirit of sport. I conclude that while doping in itself can escape all objections raised against it, sports doping does indeed exemplify a deeply troublesome aspect of the human condition: the degree to which we must fill our lives with self-made games of our own devise, in increasingly self-made bodies of our own devise.

Secondly, the voluntarization of one's nature can generate consternation about the amount of personal responsibility one obtains over one's own constitution and that of one's future offspring. I pursue these problems in Chapter Four and Five. Chapter Four discusses the situations where sex offenders are presented the choice between either therapy involving chemical castration to remedy their paraphilia or incarceration. Despite the strong external pressures, I argue that such situations nevertheless offer such sex offenders a choice which they can make with adequate autonomy. Given that chemical castration therapy seeks to produce significant changes in the sex offender's mental life, among many other things such choice situations face a sex offender with an existential choice about who he wants to be. In the final chapter, I turn to the growing array of preconception care interventions by which potential parents can try to optimize pregnancy outcomes. Distinguishing between different categories of potential parents, I argue that many will often be under a moral obligation to duly engage in preconception care.

I conclude that although it is psychologically understandable to want to reduce one's level of responsibility over very profound aspects of one's own constitution and that of one's future child, the fact that personal responsibility can be very burdensome does not in itself warrant a denial or avoidance of that responsibility. I conclude that the gain in self-shaping freedom involves two forms of loss: the loss of a foundation-providing fate (central to chapter 3 on talent and doping) and the loss of an excuse-providing impotence and ignorance (central to chapter 5 on preconception care). I join the categorical opponents of physical self-shaping in resenting these losses. However, I must conclude that these problems of 'foundationless freedom' and 'relentless responsibility' are tragically unavoidable. Self-deceptive denial of the protean predicament we find ourselves in provides no escape. Indeed, that would itself amount to a form of excessively wilful self-shaping. It would also signify a moral failure to be open to the unbidden – ironically the very existential-ethical failures that categorical opponents of physical self-shaping reproach its proponents. These tragic troubles of our protean predicament – rendered so acute by our increasing ability to physically reshape ourselves – seem to be not only undeniable, but unsolvable. What remains is the search for for ways to cope with them.

Samenvatting

Tegen de achtergrond van het actuele debat over 'menselijke verbeterkunde' – het gebruik van biotechnologie om menselijke eigenschappen en vermogens te verbeteren – spitst dit proefschrift zich toe op een onderliggende praktijk: mensen die fysieke middelen aanwenden om hun eigen lichaam en dat van hun toekomstige kinderen vorm te geven. Ik introduceer deze praktijk in het inleidende hoofdstuk, waar ik de huidige staat van het (vaak uiterst antagonistische) debat schets. Ik stel er ook een conceptuele verheldering voor van een 'fysieke zelfvormingshandeling' en een 'verbeterkundige handeling.'

Het tweede hoofdstuk licht toe hoe fysieke zelfvorming zoal verbeeld en beoefend werd doorheen de menselijke geschiedenis. Hiermee hoop ik te tonen hoe het actuele debat doorzien kan worden als een herneming van vraagstukken die te gronde tijdloos zijn. Zo kan ik ook preciezer aanwijzen hoe onze toenemende vrijheid toch ook enkele nieuwe problemen in zich draagt. Ik presenteer er ook een taxonomische verkenning van de vele richtingen die fysieke zelfvorming kan inslaan – een correctief voor de neigingen om het debat te versmallen tot een over (verdrukkende) normen van performantie en perfectie.

Ik ga in op hoe zulke vrijheden tot zelfvorming de indruk kunnen doen afnemen dat je als mens een 'natuurlijk lot' geniet: een vooraf meegegeven cluster van beperkingen, talenten en karaktertrekken die een spontane vaart en specifieke vorm geven aan je bestaan. De toename van vrijheden tot zelfvorming lijkt onze identiteit volatieler te maken, voluntaristischer ook. Dit toenemend 'proteaans parket' waarin we onszelf aantreffen confronteert ons met twee existentieel-ethische problemen die ik centraal stel in dit proefschrift.

Ten eerste kan zo'n proteaanse vrijheid verwarring scheppen over wie je bent en welke persoonlijke ontwikkeling je hebt na te streven. Het derde hoofdstuk gaat hierop in. Ik onderzoek er het grote existentiële belang dat aan 'talent' wordt gehecht in de sportwereld, en hoe dit zich verhoudt tot de net zo wijdverspreide overtuiging dat doping een intrinsieke schending van de 'spirit of sport' uitmaakt. Ik besluit dat tegen doping op zichzelf geen enkel intrinsiek bezwaar overeind blijft. Het is wel zo dat

doping ons met de neus op een heel verontrustend aspect van de menselijke conditie drukt: de mate waarin we onze levens hebben te vullen met zelfgemaakte spelen, nu ook gespeeld met zelfgemaakte lichamen.

Ten tweede kan de voortschrijdende voluntarizering van je 'aard' ontsteltenis opwekken over de toename van persoonlijke verantwoordelijkheid over je eigen gestel en dat van je toekomstige kinderen. Ik ga in op deze problematiek in hoofdstukken vier en vijf. Het vierde hoofdstuk handelt over seksuele delinquenten die de keuze voorgeschoteld krijgen tussen ofwel therapie met chemische castratie om hun parafilie te remediëren, ofwel incarceratie. Ondanks de sterke externe druk betoog ik dat dergelijke situaties desalniettemin aan seksuele delinquenten een keuze kunnen bieden die ze met voldoende autonomie kunnen maken. Chemische castratie-therapie wil diepgaande wijzigingen aanbrengen in het geestesleven van een seksuele delinquent. Als zodanig stelt dergelijke therapie een seksuele delinquent voor een existentiële keuze over wie hij wil zijn. In het vijfde en laatste hoofdstuk bespreek ik de problematiek van de toename van persoonlijke verantwoordelijkheid in een heel ander domein: de groeiende waaier aan maatregelen van preconceptiezorg voor potentiële ouders om de uitkomst van toekomstige zwangerschappen te optimaliseren. Ik differentieer tussen verschillende categorieën van potentiële ouders, en besluit dat velen inderdaad een morele verplichting kennen om gewetensvol aan preconceptiezorg te doen.

Het is psychologische begrijpelijk is om je aandeel van verantwoordelijkheid over heel fundamentele aspecten van je eigen gestel en dat van je toekomstig kind te willen reduceren. Weliswaar legitimeert het drukkende gewicht van zulke verantwoordelijkheid op zich geen ontkenning of ontvluchting van die verantwoordelijkheden. Ik besluit dat de aanwas van vrijheden tot zelfvorming twee vormen van verlies met zich meebrengt: het verlies van een vorm- en vaart-gevende 'aard' (de kern van hoofdstuk drie over talent en doping) en het verlies van de onschuld die ligt in onvermogen en onwetendheid (de kern van hoofdstuk vijf over preconceptiezorg). Ik geef de categorieke tegenstanders van fysieke zelfvorming gelijk in hun weerzin tegenover deze verliezen. Ik moet evenwel besluiten dat deze problemen van 'grondeloze vrijheid' en 'genadeloze verantwoordelijkheid' tragisch onvermijdelijk zijn. Een zelfbedrieglijke ontkenning van het proteaans parket waarin we onszelf bevinden biedt geen uitweg. Dat zou niet alleen zélf een vorm van al te eigenmachtige zelfvorming zijn, het zou ook een moreel falen inhouden om open te staan voor het ongewenste. Ironisch genoeg zijn dit precies de existentieel-ethische verwijten die categorieke tegenstanders van fysieke zelfvorming aan de voorstanders ervan verwijten. De tragische troebelen van ons proteaans parket – zo acuut gemaakt door ons almaar toenemend vermogen om onszelf fysiek te hervormen – lijken niet enkel onontkenbaar, maar onoplosbaar. Wat ons rest is zoeken naar manieren om ermee overweg te kunnen.

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Chapter 1 Introduction

Now that my ladder's gone,
I must lie down where all the ladders start,
In the foul rag-and-bone shop of the heart.

William Butler Yeats, "The Circus Animal's Desertion"
1996 (1939)

1.1 General Introduction. The Increasing Voluntarization of our Existence

Whether discreetly or dramatically, most humans engage in physical self-shaping (henceforth: PSS) practices daily. Consider how each morning, a tide of coffee, tea and assorted stimulants sweeps around the globe. Sipping their fragrant fix of choice, people give themselves a biochemical nudge towards desired emotional states and cognitive abilities. In another common morning ritual, people cultivate their appearance which has them cutting, plucking, shaving and dying patches of hair from head to toe; inserting metallic decorations in punctured skin; painting their faces; glancing at tattoos, implants, transplants, removed foreskin, trimmed labia, elongated labia[1] and all the other ways their default bodies have been modified. Turning to their wardrobes,

[1] A familiar cultural practice in the Great Lakes region and some further parts of Sub-Saharan Africa, known as *gukana* in Rwanda. In this PSS practice, adolescent girls are told to pull their labia on a routine basis, which then swell and stretch up to multiple additional centimeters. This enhances female (pleasurable) sensitivity, facilitates female ejaculation (highly appreciated as "femme fontaine," and for the accommodation of which dedicated rugs can be bought), as well as enhances the male orgasm when combined with the non-penetrative sexual practice of *kunyaza* (Marcotte 2014).

people envelop their bodies in second, third and fourth skins to meet the climatological and social demands of the day ahead. Going into the outside world people hook up their bodies to elaborate tools, moving themselves about at great speeds on bikes and in cars, transporting their voices to the other side of the planet through telephones, etc. etc.

The broadest possible discussion we can have about all these phenomena and more is to talk about the general 'technologization' of our lifeworld (for example, Kelly 2011) and how mankind seems to be a *species technica* by nature (Hottois 2002). This dissertation, however, has a much more narrow focus. For instance, I will not deal with this elaborate business of body enlargement through tool use, nor with the business of casually draping oneself in additional artificial skins or 'clothing.' Our first skin will be my cut-off point: my focus will be on what we can do to ourselves inside our default bodies. I will deal with how the sheer presence of PSS techniques (used or left unused) confronts us with a measure of 'freedom in the flesh' – a measure in which our bodies, and our existence arising from those bodies, become increasingly *volatile* and *voluntary* rather than simply fixed and fated.

In certain ways and to certain degrees, we all use physical means to modify our bodies. We all make use of our *"morphological freedom"* (Carrico 2006), or as I will prefer to call it here, our 'protean freedom.' With this I refer to the mythological figure Proteus: symbol of self-induced metamorphosis, the capacity to alter one's own powers and properties at will.

Figure 1 *"Der Höllische Proteus, oder Tausendkünstige Versteller [...] irrig-angesehenen Betriegers"* [The infernal Proteus, or thousandfold shape-shifter [...] erroneously respected fraud; author's translation] (Erasmus Franscisi 1695)

The great expectations of techno-optimists notwithstanding[2], our protean potency remains very limited today. Even the most affluent among us, who can have direct access to the entire range of biotechnologies out there, will find themselves largely impotent and passive towards their default body, its impulses and constraints. The body that asserts itself when each of us awakes in the morning is not at all a blank canvas, open to one's own design and submissive to one's own control. It is trivially true that we are not gods, starting our days with a matinal *autocreatio ex nihilo*. We are not at liberty to construct ourselves from scratch, except perhaps in the crude sense that we are at liberty to auto*destruct* ourselves back to ashes. Given the constant possibility of philosophical suicide, our tacit choice to keep on existing laces everything about our lives with a (miniscule) measure of voluntariness. However, other than that destructive 'flipswitch freedom' by which we can choose to either be or not be, our embodiment is predominantly fated. We are no 'blank slates' (Pinker 2002): we all have, that is, a *default* nature. Nor are we 'deeply rewriteable slates:' this default nature is overwhelmingly *recalcitrant* to the desired self-images we generate in our consciousness.

As humans we certainly have a remarkable ability to conjure up an unbridled *"space of alternative modes of being"* (Bostrom 2005a) in our imagination. In the life of gods, angels and other figures from our mythological bestiary, we might realize deeply held desires and values in ways that our default nature never could: *"Our own current mode of being [...] spans but a minute subspace of what is possible or permitted by the physical constraints of the universe. It is not farfetched to suppose that there are parts of this larger space that represent extremely valuable ways of living, feeling, and thinking."* (idem) Indeed, a subset of these alternative embodiments may be physically possible. A further subset may even become practically attainable one day, and a final subset may even become attainable to us during our lifetime. As I will show, through PSS techniques a significant subset of them is already practicable today.

Of course, we cannot snap our fingers to, Proteus-like, seamlessly metamorphize our default nature into some better-fitting alternative. As Allen Buchanan puts it, we remain embedded in a recalcitrant *Homo sapiens* nature (Buchanan 2011), each individual fitted with a particular variation on that communal species nature. Fiddle with one's earlobes, genitals and blood-brain barrier as we might, we only have some little tips of protean

[2] Such as the so-called 'transhumanists' and those awaiting the technological 'singularity,' the exponential growth of technology up to a point – which might suddenly come upon us already in the 21st century, for example, through the rise of artificial intelligence – where transformative change will occur at such a rate that our stone-age *Homo sapiens 1.0* minds cannot begin to fathom what will happen afterwards. Indeed, the hope of many of these techno-utopians is to transcend the 'wetware' of our makeshift biology altogether, and to upload the 'software' of our minds unto new and improved 'hardware' carriers, a scenario dubbed 'uploading,' cf. Naam 2005, Kurzweil 2005.

potency, underneath which lies the great iceberg of our stubborn default nature which we are impotent to alter.

Although a deep bondage to biological constraints continues to mark our human condition, arguably there are three features to our current techno-industrial era that mark a break with the 'traditional,' circumscribed ways in which we have always been resculpting our default nature. Firstly, traditional PSS practices have always stayed below certain thresholds. Only in some very limited spheres of life could one reshape one's own embodiment, and the precision and profundity with which one could do this was very limited. As a result, one could for instance be shaving and piercing, drinking coffee and alcohol without ever considering the thought of generalized protean freedom: being able to transform oneself at will, across the board, with great precision and profundity. In contrast, even if our modern array of PSS practices may still be relatively modest, it may nevertheless already have amassed to such an extent that a *psychological* threshold is overstepped, where our consciousness is flooded by options and (missed) opportunities for self-change and -improvement – as indeed psychologists, sociologists and ethicists are arguing (Schwarz 2004; Ehrenberg 1998; Nagel, S. 2010). Secondly, the advent of techno-industrial society gave rise to a new form of forward-looking consciousness, generating a state of chronic apprehension (hopeful, dreadful or ambivalent) of man-induced change. Through speculation about scientific-technological marvels to come and through science-fictional imagination in the arts, 'modern' people can perceive virtually everything about their current biotopical and biological condition as provisional, as susceptible to future manipulation by ourselves. The modernist-millenarist imaginary can thus provoke (fantastical) thoughts about ever-expanding, ever-deepening protean liberties coming our way – about 'all that is solid melting into air'[3]: all things rendered volatile and voluntary. Thirdly, it was only with the advent of the puritan infatuation with individual self-determination[4] and the creation of liberal political institutions, which pushed deliberations about the good life back into the private sphere, that individuals could begin to feel truly personally in charge of deciding what to identify with and what to do with themselves (Taylor 1992). Traditional PSS practices would often be strongly pre-scripted by society and unreflectively conformed

[3] Trope taken up as a title by Marshall Berman for his *All That Is Solid Melts into Air. The Experience of Modernity* (Berman 1988), originally from Marx and Engels' *Manifesto of the Communist Party: "Constant revolutionising of production, uninterrupted disturbance of all social conditions, everlasting uncertainty and agitation distinguish the bourgeois epoch from all earlier ones. All fixed, fast-frozen relations, with their train of ancient and venerable prejudices and opinions, are swept away, all new-formed ones become antiquated before they can ossify. All that is solid melts into air, all that is holy is profaned, and man is at last compelled to face with sober senses his real conditions of life[.]"* (Marx and Engels 2010 [1848])

[4] The historical causes of which include the protestant insistence on wholly uncoerced, truly sincere individual commitment, cf. Fromm 2013 [1941].

to, and thus not be accompanied by a feeling of personal liberty, even as one was oneself going through the motions of plucking and piercing through one's own body. In contrast, modern individuals tend to feel a (perhaps illusionary) measure of truly personal decision-making: uncoerced – and unaided as well. Only under such conditions can people begin to, in Kant's overworn phrase, *"emerge from self-incurred minority"* (Kant 1996 [1798]) and sober up to their potential for 'foundationless freedom' (in the sense that they themselves have to establish and endorse a normative foundation for their own lives) and 'relentless responsibility' (in the sense that they thereby forfeit the excuses of being impotent, ignorant or forced by higher powers). As Christine Korsgaard opens her recent *Self-Constitution*, moderns are thus vulnerable to the existential realization, which can come with both an elated sense of dignity and a sinking feeling of disillusionment, of how *"[h]uman beings are condemned to choice and action."* (Korsgaard 2009: Loc. 102[5]).

1.2 Situating This Study Within the Contemporary 'Enhancement Debate'

In the past decade, a significant sense of urgency about the *"enhancement enterprise"* (Buchanan 2011) has swept through many of the leading bioethical journals and conferences. Indeed, the issue of human enhancement – roughly: the use of physical means to enhance human powers and properties beyond some threshold of normal health – has established itself as one of the key topics in contemporary bioethics. For good reason or not, by now it has generated a massive publication bubble, one that has become well-nigh impossible to remain afoot with as an individual researcher.

Interest in human enhancement is not at all contained within the academic and medical institutions. Policy makers have also found it worthy of explicit attention. By now most Western states have had their advisory councils draft policy recommendations on how to regulate human enhancement.[6] Policy responses are being explored towards both human enhancement in general as well as towards particular

[5] Several of my sources are e-books in the Kindle format, in which page references are replaced by 'locations,' abbreviated as "loc."

[6] For example, President's Council for Bioethics 2003 (USA); British Medical Association 2007 and Nuffield Council on Bioethics 2013 (UK); Deutscher Ethikrat 2009 (Germany); Comité Consultatif National d'Éthique 2013 (France); Comitato Nationale per la Bioetica 2013 (Italy); Rathenau Instituut 2013 (The Netherlands); Académies suisse des sciences 2012 (Switzerland); Etiske Råd 2011 (Denmark).

enhancement practices such as doping in sports or the use of biotechnologies to enhance cognitive performance. Under discussion are both the governance of currently existing enhancement techniques as well as the research & development of transformative biotechnologies and the modalities with which these should ideally be introduced into society.

Human enhancement has also become a staple subject in popular media. Not only do we, as a society, engage in constant – often overheated – debate on particular enhancements such as athletic doping and aesthetic surgery; increasing attention seems to be devoted to discussing the enhancement enterprise as a comprehensive whole. This happens for instance in discussions on 'playing God' and how man is becoming his own maker in this 'age of biotechnology' (Rifkin 1998). Another marked feature of the contemporary debate is the agitation coming from civil society, most notably from the radical technophile subculture of 'transhumanism.' This movement can in part be understood as the most recent emanation of technophile and techno-utopian thought, something that has always been an important presence in techno-industrial societies (Regis 1991, Van den Berghe 2008, Davis 2015). These transhumanist philosophies also seem to be receiving increasing airplay in popular media. For instance, in October 2009, 'transhumanism' graced the cover of *Foreign Policy* magazine as *"the world's most dangerous idea."*

Transhumanism acts as an umbrella term for a (sub)cultural movement that allows for a wide range of internal pluralism, but key figures in the movement have repeatedly tried to spell out the common ground by publishing consensus documents, such as the *Transhumanist FAQ* (World Transhumanist Association 2003) and, most recently, the *Transhumanist Declaration,* which starts off by claiming that

> 1. Humanity stands to be profoundly affected by science and technology in the future. We envision the possibility of broadening human potential by overcoming aging, cognitive shortcomings, involuntary suffering, and our confinement to planet Earth [sic].
> 2. We believe that humanity's potential is still mostly unrealized. There are possible scenarios that lead to wonderful and exceedingly worthwhile enhanced human conditions. (Humanity+ 2009)

This declaration alludes to the widespread conviction among transhumanists that technological progress will advance at exponential rates, so that in the coming century, we stand to witness unprecedented technological transformations, potentially dwarfing even the Linguistic, Agrarian, Industrial, Nuclear, Computer and Internet revolutions.

I will steer clear of this extreme side of the debate. Nor will I try to parse the enormous amount of forecasting and futurist speculation about which technological breakthroughs can be expected when (see Samuel 2009 for a history of futurism in the 20th century). My interest is to study the notion of physical self-shaping and its ethical-

existential repercussions. What I present is a study, ultimately, of the existential problems that are peculiar to the experience of profound and physical *personal liberty*. In the main my study will be illustrated by three entirely non-speculative, contemporary examples: doping (chapter 3), chemical castration (chapter 4) and preconception care (chapter 5). Where useful, I will contemplate as-of-yet impossible forms of protean liberty, but my interest in them will be more as *thought experiments* to de-parochialize our thought rather than as impending realities. As such, discussions of more radical, counterfactual forms of protean liberty have a relevance that can be largely divorced from all assessments of their feasibility or unfeasibility (cf. Dennett 2013, Parfit 1984).

The enhancement debate has a strong socio-political slant (Hughes 2004). Important as these 'biopolitical' issues are, again this will not be where I will make my main stand. I will push biopolitics to the background, and instead foreground the ethical-existential side of things. In this introductory evocation of the state of the debate, I should, however, provide the reader with a brief introduction to the socio-political issues under discussion. In doing so, I can also clarify how my further use of the notions of 'freedom' and '*self*-shaping' should be understood.

The enhancement enterprise holds all kinds of socio-political upheavals in store. For instance, suppose we stumble upon techniques to, for example, expand one's youthful vigour with 20 years or to increase one's general intelligence with 10 IQ-points. If only the rich and/or willing would undergo such enhancements of youth span or cognitive acumen, we may witness the emergence of true biodiversity among human populations. Deepening divides among different biological 'castes' or 'races' may emerge, potentially leading into subspeciation down the line (Annas, Andrews and Isasi 2002). The resulting societal stratifications would not simply be based on power grabs and purely social privilege, but on biological privilege and undisputable 'meritocratic' superiorities in terms of certain powers and properties (Mehlman 2009a; Daniels 1978).

Clearly then, the enhancement enterprise presents us with daunting political problems: who gets to use PSS techniques on themselves? Who gets to use them on others, and who will find themselves (indirectly) coerced to use them or leave them unused despite their own wishes? To give a less far-flung, contemporary example, in a session on human enhancement I attended at the European Parliament, we discussed the possibility that captains of the logistics industry may want to require their lorry drivers to take wakefulness enhancing drugs such as Modafinil, for instance by adding such a drug-clause to the standard contract. As a result, those refusing to drug themselves may see the job going to those who are willing to drug themselves unless protective measures are taken (European Parliament Science and Technology Options Assessment 2009; cf. also Vincent 2014).

At the most abstract level, whenever a new freedom[7] is discovered, there will be a scramble over who gets to actually use that freedom on whom. New possibilities for physical self-shaping are no exception to the rule. As a result, if you become aware of a new possibility to shape your self, barring total secrecy sooner or later others will become aware of that possibility too. Chances are that those others will do more than neutrally register the possibility that you might be changed. Overtly or not, some will begin to desire or demand that you make that change (for example, the logistics CEO wishing her lorry drivers would take wakefulness-enhancing drugs). Others will begin to desire or demand that you *don't* make that change – that you stay who you are, and (down) where you are. Every new invention or discovery enables some people more than others (for example, those who can afford it, the early adopters, those who get the bigger boost from it, etc.), and thus disrupts the default power balance. This also means that those who come out on top within the default *natural* distribution of powers and properties within a given population (for example, the naturally talented, the naturally beautiful, or in general: 'the talentocracy') have good Machiavellian reason to thwart others trying to use the new-fangled pathways to those powers and properties (for example, doping and aesthetic surgery). For instance, those with an interest in preserving the *status quo* may want to flat-out ban such PPS techniques (Young 1994 [1958], Edmonds 2007, Bonte 2015a). Alternatively, they may want to foster a categorically derisive attitude about those PSS techniques, for example, as being 'not the real deal' or as evincing the character flaw of 'trying too hard' (Eskenazi 2007, Mehlman 2009a, Juengst 2012).

In any social constellation, a field of freedom will always be colonized according to the (dynamic) social relations that be. As a result, only the lucky (or cursed) few may be *actually* free in certain respects, and most others will find themselves subjected to the decisions made by those lucky/cursed few. In such carve-ups, the many are only *potentially* free. They live under the influence – which can range from loving care to violent enslavement – of power-wielding and responsibility-bearing individuals, communities or institutions. But even if many would live as knaves, they could still live in the awareness of their potential freedom.

Historical developments also play their part in rendering some freedoms actually available and rendering other freedoms merely potentially available, often reducing this 'potentiality' to an *impossibility* for all practical intents and purposes: *"If we embrace technology we need to confront its costs. Thousands of traditional livelihoods have been sidetracked by progress, and the lifestyles around these occupations eliminated."* (Kelly 2011:

[7] I will use the word 'freedom' to refer to the following capacity, unrelated to metaphysical notions concerning the freedom of the will: a capacity to act in a way that produces a change in a state of affairs as intended and endorsed by the agent.

Loc. 2791) Strong-willed communities and individuals such as the Amish or certain anarcho-primitivists may succeed in maintaining 'off the grid' walks of life, but even then probably only partly so and only so long as they remain fringe phenomena. Biopreservationist authors such as Bill McKibben propose that we nevertheless try to take a generalized Amish-like stance towards the enhancement enterprise, and collectively refuse the PSS techniques it exposes us to (McKibben 2003). Taking things to extremes, in his ardent desire to preserve a sufficiently natural and self-sustaining way of life, Theodore Kaczynski saw no other option but to destabilize the techno-industrial complex through acts of terrorism (Kaczynski 1996). Known as the Unabomber, between 1978 and 1995, Kaczysnki sent at least 16 mail bombs to scientists, industrialists and others who were advancing or abetting research tracks which Kaczysnki thought were so disastrous to human flourishing that they needed to be violently foreclosed (Kelly 2011: Chapter 10).

In general, the basic fact holds that your own past choices, and those made by others before you, will foreclose and preconfigure many modes of being for you. Societal and technological infrastructures will often impose themselves as *biotopical* preconfigurations. Similar to how insurmountable cosmological, geographical and biological contingencies force us to exist in a highly situated way, societal-technological contingencies will oblige us to live within the range of lifestyles they render possible, and to come to terms with the impossibility of living a kind of life that would first require a change in biotope – a revolutionary transition you cannot possibly pull off as an individual and most likely cannot expect to witness within your own lifetime.

The 'biopolitical' and 'biotopical' conditioning of our existence often takes centre stage in the philosophy of technology (for example, Verbeek 2011, Kelly 2011, Dyens 2008). In full recognition of the importance of such analyses, in order to add to the debate I will devote my energies to another dimension. Namely, I will focus on those pockets of substantial individual autonomy that pop up and persist even as great biotopical pressures are bearing down on individuals.[8] Instead of focusing on biotopical pressures, I will focus on the existential-ethical intimacy of individuals who find themselves free to shape their inner selves. Indeed, I hope to add to the debate by exploring problems at the other end: what happens when we feel *too little* pressure and constraints from our natural and social lifeworlds, and how should we live under such relatively depressurized conditions? I will pursue questions of meaning and character: what are meaningful, characterful ways to use or leave unused opportunities to physically reshape one's default nature? What are meaningful, characterful ways to

[8] An in-depth description of such pockets of individual autonomy in the field of aesthetic surgery, written from the perspective of a female plastic surgeon, can be found in Eskenazi 2007.

relate ourselves to our default nature (our figure, our personality, our (lack of) talents, the hereditary baggage we are likely to pass on to our children)? In what ways is being-at-protean-liberty a resentable predicament to be in, and how might one limit, reduce or undo that (awareness of) protean liberty without falling foul of disingenuous self-deception and reproachable irresponsibility?

1.3 Working Definitions. 'Physical Self-Shaping' and 'Enhancement'

Talk of 'enhancement' and 'self-shaping' is riddled with ambiguity and misunderstanding. The taxonomical overview of PSS practices in the next chapter should clarify much of this. Here I can suffice with a brief conceptual clarification of what I am trying to get at by using the phrase 'physical self-shaping,' and what I hold to be the most useful conceptualization of 'human enhancement.'

As a working definition of a physical self-shaping intervention, I propose the following:

> A physical self-shaping intervention is the introduction or application / of a physical entity or process / within or upon a person's bodily substrates / that produces an alteration in that person's properties or powers / thus enabling that person to exist in a way that is markedly different from how she existed before this introduction or application.

An *intervention* can be a more or less technical procedure (a 'technique') or a plain simple one (for example, popping a pill). It can require elaborate human or machine processing ('technology') or be based on the use of materials and processes stumbled upon in nature. When I talk about a 'practice,' I refer to the intervention as it is embedded in a psychological and social context.

The first clause about *introduction* or *application* implies an act by an agent. In this dissertation I will focus on *self*-shaping practices in a double sense: individuals who are themselves reshaping (the bodily substrates of) their selves. As I detailed above, I will thus largely suspend discussions on social and political entanglements where a person's self is being reshaped by others. Where I do address them (for instance in the co-authored chapter on chemical castration), it is to show that *even under strong social pressures,* there can nevertheless still be a dimension of individual autonomy at play. With regards to agency, I have taken care not to over-emphasize the element of intentionality. Some argue against PSS because it would be too intentional: a form of excessive wilfulness, control-freakish *"hyperagency"* (Sandel 2007). However, some PSS

interventions can be unintentional (for example, unknowingly munching a hallucinogenic mushroom, or experiencing character-change as an unintended side-effect of therapeutically intended brain surgery). Alternatively, they can involve very different, and often more relaxed forms of intentionality than that of overbearing control (cf. infra 2.4.5).

By *physical entity or process* I make the common distinction between 'physical' and 'mental' forms of influencing. This is in part a folk-psychological or phenomenological distinction. This distinction can be played down and perhaps even broken down entirely by pointing out how mental, behavioural and sensory (MBS) interactions are just as much underpinned by physical substrates. For instance, language also changes brain states, speech is channelled physically into one's ears through vibrating air, and visual stimuli provoke physical changes in the cones and rods within one's retina. However, adherence to a materialist world view does not *ipso facto* render such distinctions obsolete (Flanagan 2007; 2009). Even if the distinction is 'merely' one of folk-psychological or phenomenological perception, the perceptual distinction remains a psychologically salient one and it can equally retain its ethical relevance. In the PSS debates as elsewhere, means matter (Schermer 2008). A change in means can imply a change in the nature of activities, and different pathways to a similar end state can end up making a big moral difference (for example, being able to recall something from memory as opposed to from a smartphone, cf. Santoni di Sio et al 2015).

By referring to *a person's bodily substrates,* I refer to the fact that PSS interventions call explicit attention to those substrates: they awaken us to the extent to which our existence emerges from underlying material realities. On a different note, with this clause I also wish to include a person's reproductive organs and gametes. In this sense, a person's self-shaping activities can also produce changes in one's future offspring: a self-shaping practice thus becomes entangled with a child-shaping (or selecting) practice.

By using the notion of *alteration,* I try to keep my definition as normatively neutral as possible. 'Alteration' keeps the aim of PSS unspecified and open-ended. *Enhancements,* for instance, are but one kind of self-alteration (Kaebnick 2014, cf. infra 2.4.5).

In the final clause of this working definition I introduced the notion of *enablement.* I have explicitly added this criterion to alert to the fact that the effect of a PSS intervention will not necessarily be 'automatic' or 'mechanistic,' as is often feared (for example, the common worry of the *"drift towards mechanism"* (Sandel 2007: 27), where prostheses and pharmaceuticals and other invasive interventions would start to play a person like a puppet). Although there might be some PSS interventions that operate in such automatic ways, many others will simply *introduce an enabling substrate* into one's

body. Similar to, for example, 'natural talent,' such a newly introduced substrate will then still require effort on behalf of the person in order to be activated, calibrated and cultivated.[9]

Whenever one talks about a self-shaping practice, it remains to be seen at what depth one would literally be practicing a shaping 'of oneself, by oneself.' As to the shaping *of* oneself, one's self-shaping can involve parts of oneself that are either peripheral or central, small or large, single or numerous, etc. Arguably, it will only be after overstepping certain thresholds of profundity, centrality, or duration that it makes sense to speak of a significant alteration or transformation *of the self* (DeGrazia 2005; Paul 2014). Superficial, peripheral or fleeting alterations (for example, a glass of wine) may constitute a 'self-change' in no more than a very minimal and relatively trivial way. This depends on the concept of 'self' and the philosophy of identity one wishes to work with. I will clarify this as I touch upon such issues further down the line of this dissertation.

As to the shaping *by* oneself, the hand one has in one's self-change can range from a merely executive one to a truly initiating one. If one is assuming no more than an executive or assenting role, this means that one's basic attitude remains largely *uninvolved* and passive-receptive. True, one will be actively going through the motions of shaping oneself (for example, electing and undergoing a surgery), but one will be doing so based on *received* notions (received from, for example, one's spontaneous passions or natural inclinations, from the moral community one is immersed in, or from 'Nature,' 'God,' or 'pure reason'). Alternatively, one can play a truly foundational and initiating role: shaping oneself not simply in line with received notions justified by other sources (or simply left unreflected-upon and unjustified), but starting from a profoundly voluntarist, 'foundationless' frame of mind where can one, at the outset, *"affirm or behold nothing outside our own will."* (Sandel 2007: 100)

Turning to the notion of 'human enhancement,' this is a specific subset of PSS interventions characterized by the specific orientation that their altering effect takes. As a working definition of an enhancement intervention I propose to replace the final clause of the aforementioned definition of PSS by the following, more specific one:

[9] To foreground this point, some authors have been pushing for a rephrasing of the debate about 'human enhancement' into one about 'human enablement.' I do not follow their lead, however, because 'enablement' carries euphemistic connotations. 'Neuromarketing consultant' Zach Lynch is one of the agitators for this change in nomenclature (Lynch 2007). I perceive it as a PR-move to create a more up-beat, non-oppressive sales pitch for the transformative technologies in question (cf. Parens 2014 and Elliot 2004 for discussions on how marketeers exploit the language of autonomy and authenticity in their advertisement campaigns for *inter alia* antidepressants and mood brightening drugs).

thus enabling that person to acquire additional properties or powers or to enhance existing ones beyond the set or level

(a) that the (otherwise healthy and able-bodied) person possessed prior to the intervention (*bypassing enhancement*),
(b) that the person might come to possess if she were to enjoy optimal MBS stimulation (*individual surpassing enhancement*),
(c) of the biological species the person is (or was) a member of, i.e. *Homo sapiens* (*species surpassing enhancement*).[10]

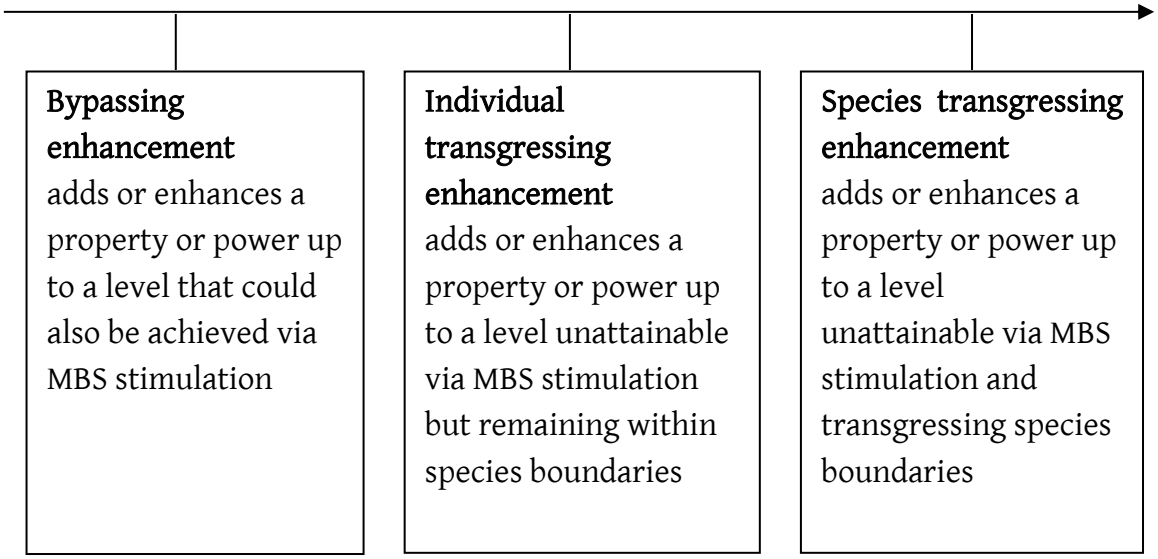

Figure 2 Three thresholds of enhancement.

A clear example of the 'bypassing' type of enhancement is liposuction of body fat that could also have been lost through dieting or physical exercise. An example of individual transgressing enhancement is laser eye surgery to enhance one's visual acumen. When an even more potent eye surgery would enhance visual acumen beyond the default phenotypical range of *Homo sapiens* biology, it would become a species transgressing enhancement. Species transgression can be a tricky notion, because the concept of a

[10] These can be thought of as three successive frontiers: a given enhancement intervention may bring about transgression (a), but not yet (b) and (c); (a) and (b), but not yet (c), or (a), (b) and (c). It is interesting to mention the possibility of 'leapfrog technologies,' of which the running blades of the athlete Oscar Pistorius might be a contemporary example, wherein a *therapeutic* intervention may not only restore health or ability but at the same time, perhaps even inextricably, effectuate all of these enhancing transgressions. Certain replacement prostheses may enable superior performance in some respects in comparison to the flesh and blood limbs and organs of default *Homo sapiens* biology (Magdalinski 2012, cf. infra 2.4.5.5).

species itself remains a contested notion in the philosophy of biology.[11] Complication is compounded by the constant possibility of genetic mutation (for an overview of the many kinds of mutants among us, see Leroi 2005). Rare outliers, for instance those with great 'natural talents,' can stretch the boundaries of the species. For instance, in the doping debate, a much-discussed example is that of Olympic champion Eero Mäntyranta who had the luck of being born with a benign case of the genetic mutation known as primary familial and congenital polycythemia, providing him a natural equivalent of an EPO-boost (Nouvel 2011; Epstein 2013: Ch. 16).

As I will explore in the next chapter, enhancements can be pursued for reasons very different from those of productivity, performance and perfection (Roduit, Bauman and Heilinger 2013). Moreover, in terms of practical priority enhancements need not be categorically secondary to therapy or making improvements in our surroundings, as is often assumed. For instance, Persson and Savulescu (2012) argue that (physically) enhancing our capacity for wise moral agency is perhaps practical priority #1. In the same vein, should it ever become practicable to enhance the human digestive tract so as to extract nutrients more efficiently or to widen the array of foodstuffs edible to us, that may be the more cost-effective way to secure a healthy and sustainable lifestyle: it may one day become interesting to make *ourselves* the 'genetically modified organism' in the equation (Buchanan 2011).

Again, this working definition is crafted to be normatively neutral. In the above characterization, 'enhancement' might for instance refer to an increase of the sweetness of one's body odour. With such an odour-enhancement, it still remains to be seen how that person herself as well as others will evaluate this super-sweet odour. Some may find it aphrodisiacal, others insufferable, others still may find it a mark of poor taste, etc. As many commentators note (and I concur), the phrase of 'enhancement' *can* be used neutrally as a simple indication of, for example, increased quantity or amplitude, but in the general conversation that is rather the exception than the rule. Dale Carrico for instance notes how he has *"long been leery of the general term 'enhancement medicine'"* because

> 'enhancement' seems to me to imply a kind of prior agreement as to what an 'enhancement' consists of in the first place, when in fact any 'enhancement' is always enhancement: to whom? Arising from what initial condition? Achieved by what means and in what social circumstances? In the service of what ends? And so

[11] One might for instance define a species based on paradigmatic species-typical traits, an evolutionary historical lineage, reproductive isolation, etc. (Ereshefsky 2012) For the purposes of this dissertation, I need not settle on a specific way to demarcate species barriers. A folk-psychological or conventional understanding as that which is commonly perceived as a transgression of species-typical properties and powers can suffice (Meacham 2012).

> on. There is a deep diversity of actually existing viable human morphologies and lifeways in the world. And modification medicine will (or certainly it should) expand rather than contract that diversity. 'Enhancement,' on the contrary, seems to conjure up the image of consensus where no consensus can or should be. It seems to me to imply the eerie tableau of 'the race' in some imaginarily monolithic morphological construal all marching resolutely in the direction of some medically-mediated 'optimality.' (Carrico 2007)

In line with Carrico's suggestion, I will be more interested in the underlying notion of modification, and more precisely the modification of an individual's body by that individual herself.

In sum, the study at hand will be constrained by a triple focus: (a) a deepening focus on modification, instead of on enhancement, (b) a narrowing focus on the individual unto herself and her potential offspring, instead of on socio-political dynamics, and (c) a narrowing focus on the intrinsic characteristics of PSS as enumerated in my working definition, instead of on extrinsic eventualities such as risks, costs and side-effects. I am not alone to make these turns away from a broad-ranging discussion of the enhancement enterprise. Arguably, there is something of a 'turn' underfoot in the enhancement debate towards *"existential values and attitudes"* (Kahane 2011). More numerous and more detailed studies are being published about how PSS relates to identity and authenticity, to motivation and meaning, to the intrinsic problems that come with the freedom to self-constitute, and to the roles one's default nature can play in helping a person determine who she wants to be and which concrete, embodied activities she can affirm as meaningful enough to commit herself to. Michael Hauskeller, for instance, notes that *"that seems to be the whole point of human enhancement: to become able to choose what we are."* (Hauskeller 2014: loc. 3032) In *Shaping Our Selves* (2014), Eric Parens argues how authors on all sides of the debate are (tacitly) assuming an ethic of authenticity. With a play on Hauskeller, the point of human enhancement would then be to 'become able to become what we truly are' (see also Singh 2005; Levy 2011; Kraemer 2011; Erler 2013). Discussing the increasing opportunities for biotechnological self-determination, Saskia Nagel has argued that *"the broadening of areas at one's disposal together with the increasing individualization of value systems leads to situations in which the range of options asks too much of the individual."* (Nagel, S. 2010: 109) In *The Case Against Perfection,* one of the most seminal works of the contemporary debate, Michael Sandel has argued that the *"vision of freedom"* generated by PSS techniques *"threatens to banish our appreciation of life as a gift, and to leave us with nothing to afform or behold outside our own will."* (Sandel 2007: 100) Where Sandel argues for the crucial importance of an existential attitude of *"openness to the unbidden"* (idem: 86) and letting nature be, in a reply much like mine in Chapter 3, Guy Kahane has acknowledged the crucial value of being open to unbidden realities, but adds that *"[t]he absolutely, unqualifiedly unbidden exists* only *in a naturalist, Godless universe [...] without meaning of purpose"* (Kahane 2011: 357), which makes

it doubtful whether Sandel really is open to the unbidden, whether life can be seen as a *"gift,"* as well as whether there can be value in *"leaving things to their natural course."* (idem: 367) Meanwhile, authors such as Gregory Kaebnick and Nicholas Agar have presented intricate restatements of a generally 'biopreservationist' attitude towards life that are unequivocally free from all (crypto-)religious ties. They argue for the value of *"letting nature be"* (Kaebnick 2014) and preserving our faulty, finite mortal coils in their current *Homo sapiens* state based on *inter alia* the importance of accepting and satisficing with the default contingent nature one happens to be born into and of ensuring adequate continuity in our individual and communitarian lives (Agar 2010 and 2014).

1.4 Research Questions

Against the backdrop and within the bounds set out in this introduction, in the next four chapters respectively, I will address the following four clusters of questions:

1. In what ways can the general notion of PSS, as characterized in this introduction, play a role in conceptions of the good life? What are the multiple ways in which cultures have envisioned and practiced PSS – other than 'enhancement' as it is commonly understood in the contemporary enhancement debate? And what does a confrontation with the total variety of PSS practices entail? This will be explored in Chapter 2, which provides a history and taxonomy of PSS practices.
2. In what ways can the preservation of one's default nature play a role in conceptions of the good life? How do such attachments to one's default nature stand up to critical scrutiny? Is the active use of PSS techniques necessarily at odds with such nature-based living? These questions are central to Chapter 3, an exhaustive comparison of the meaningfulness of talent-based versus doping-based sports that is mainly based on my contribution to *Athletic Enhancement, Human Nature and Sports* which I edited in collaboration with Jan Tolleneer, Sigrid Sterckx, Andreas De Block and Paul Schotsmans (Tolleneer et al. 2012). Doping *in sports* particularly piqued my interest because it is arguably one of the most unnecessary, self-willed and seemingly absurd activities we can busy ourselves with. Within their 'free time' (or within the 'entertainment industry' that provide filler for the free time of the spectators), doping athletes play a self-made game of their own devise, within partially self-made bodies of their own devise – just about the most circular and 'useless' activity imaginable.

In the final two chapters, I focus on how an increase in protean freedom might bring about an *"explosion of responsibility."* (Sandel 2007: 88) I explore the ways in which such personal responsibility can expand ('explode' is perhaps a bit much) in two particularly profound and sensitive spheres: within one's very own mind, desires and sense of identity (Chapter 4 on chemical castration) and in relation to one's own gametes and one's future children that might grow from them (Chapter 5 on preconception care).

3. Chapter 4 deals with chemical castration, a PSS technique which aims to produce drastic changes in the intimacy of the mental life and desire structure of sex offenders. It is an example of a very profound PSS technique, one that touches the core of a person's identity. In this chapter which is the result of a group collaboration with Thomas Douglas, Farah Focquaert, Katrien Devolder and Sigrid Sterckx, the central question will be whether, and under which conditions, a sex offender can be offered the option of a chemical castration treatment in such a way that respects the offender's autonomy, and might perhaps even lead to an increase in autonomy. As such, this chapter provides a concretely situated answer to the more general question: in what way can pockets of personal liberty pop up and persist even within high-pressure circumstances (*in casu,* the proceedings of a criminal justice system and the threat of incarceration), so that the choice to use or leave unused a particular PSS nevertheless remains a matter of personal discretion to a significant degree?
4. Chapter 5 deals with preconception care, which refers to the cluster of interventions one can engage in even before an embryo has been conceived, in order to increase the odds for adequate (or optimal) pregnancy outcomes. This involves examples of PSS techniques that influence the constitution of the child(ren) that might be born later on from one's own body.[12] In this chapter, written in close collaboration with my supervisors Sigrid Sterckx and Guido Pennings, we again take a highly situated example that can help to answer the more general question: to what extent does a new capability create a kind of 'capability imperative'? Does the sheer availability of an intervention make one responsible, no matter whether one uses or leaves unused the ability in question? Might our development towards ever-increasing personal responsibility be 'tragic,' in the sense of being intrinsically tied into the notion of freedom itself, and in the sense of being unavoidable regardless of one's potential resentment to

[12] Or, given the proliferation of non-typical biotechnological alternative possibilities for procreation, the child(ren) that might be born from one's own *volition* to beget a child, a child that might ultimately be made from the biological substrates of another, for example, a sperm donor.

take on that ever-growing burden? How might the burden of a 'freedom and responsibility overload' be mitigated, when existential choice expands from the binary, 'flipswitch' question whether to be or not be to a growing 'switchboard' quagmire of being able to shape one's identity in countless ways – body, brain and all?

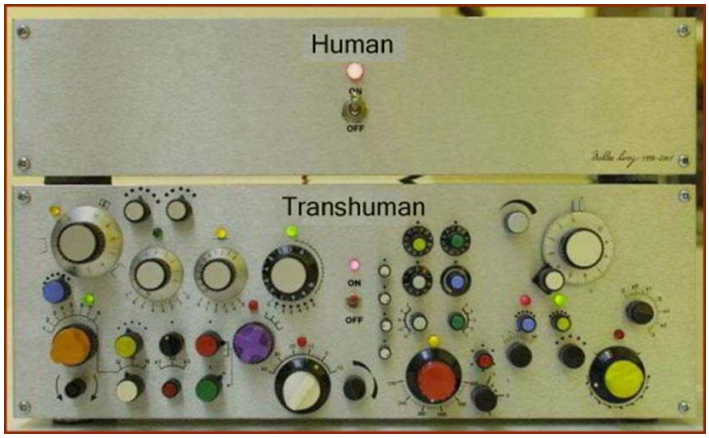

Figure 3 Existential choice in the human and transhuman predicament.

Chapter 2 People Having At Their Bodies – A Brief History and Taxonomy

Abstract

The fantastic menagerie of today's contraceptive techniques; doping; aesthetic surgeries; sleeping, waking and concentration pills; mood- and perception-altering drugs; prostheses; embryo-selection techniques etc. can easily be presented as unprecedented novelties. From another angle, they can also be framed as the contemporary continuations of perennial human yearnings to overcome the constraints of our mortal coils and as human attempts to creatively rework their given bodies. In this chapter, I propose to distinguish two broad 'historical scales' of physical self-shaping *practices,* namely 'modern' and 'pre-modern' ones. I will equally distinguish between modern and pre-modern ways in which physical self-shaping has been *envisioned*. On the one hand, there is the explicitly scientific-technological enterprise and vision of ever-increasing betterment of man's estate right here and now (or soon enough to keep some hope up, at least) in the *Diesseits*. Roughly, this enterprise and vision of 'modernity' (Berman 1988) began to coalesce during the 'proto-modern' Renaissance era, with its turns towards anthropocentric humanism and experimental alchemy. Within modernity, I will distinguish between two further sub-eras: the Enlightenment era advancing into the Industrial era, during which transformative technology predominantly turned outward, opening up vast domains of our natural surroundings to a measure of human control and creativity; and the current era of the 'inward turn' of technology, in which we come to obtain a measure of control and creativity over our own constitution. This inward turn also engendered an explicit, continuous public debate on the redesign of human nature. On the other hand, there is the wealth of physical self-shaping practices outside of and often predating explicitly scientific-technological modernity. By contrasting the pre-modern to the modern physical self-shaping techniques, a clearer picture should emerge of what is

philosophically novel and what is not about contemporary physical self-shaping techniques.

2.1 Pre-Modern Visions of Physical Self-Shaping

Somewhere around the 2100 BCE mark, Sumerian scribes took to clay tablets and carved up their Gilgamesh epic, mankind's earliest known literary work. Transhumanist Nick Bostrom marshals the Gilgamesh epic as exhibit A in his plea that *"[t]he human desire to acquire new capacities is as ancient as our species itself."* (Bostrom 2005b: 1) With a view to the issue of physical self-shaping, this epic contains five notable notions. Firstly, this epic filled with feats of magic considers the possibility that human nature could be transformed – that there are fundamentally different kinds of bodies we might morph into. Secondly, it contains *welcoming* portrayals of such physical transformations. Thirdly, it conceptualizes the possibility that such shape-shifting can take place through plainly *physical*, *natural* processes such as through the ingestion of plants. Fourthly, it entertains the possibility that humans might transform their nature by themselves, through *their own decision and action*, and – fifthly – that they can do so not to heed some higher purpose, but for self-referential, *self-serving reasons*. For instance, our first epic has King Gilgamesh questing for the means to become immortal. He manages to meet Utnapishtim and Siduri, a human couple who have uniquely enjoyed that good fortune. They inform Gilgamesh of *"a plant that looks like a box-thorn, it has prickles like a dogrose, and will prick one who plucks it. But if you can possess this plant, you'll be again as you were in your youth."* (George 1999: 98) If it had not been for a snake to slither away with the plant Gilgamesh had just come to wrest from the seabed, Gilgamesh would have gladly doped himself into rejuvenation and immortality.

In *Sapiens,* the recent best-selling overview (and forecast) of pre- and post-*Homo* history, Yuval Noah Harari places all the practices by which humans have staved off and defied death under the single rubric of 'the Gilgamesh project' (Harari 2014). Harari thereby chimes in with transhumanists who are keen to root their transhuman project in this oldest possible pedigree (Bostrom 2005b). By such 'appeals to the ancients,' transhumanists can try to normalize their project for *"the wholesale redesign of human nature"* (Kass 2008: 302). With one rhetorical stroke, they thus seek to wipe off the table the widespread worry that transhumanist technophilia would warp us into all sorts of alienating Brave New Worlds. At root, it would only be business as usual for the *Homo faber (sui)* (Mauron 2009).

Besides physical *self*-shaping, such as in the Gilgamesh example, three related types of envisionings crop up repeatedly across the anthropological record. Firstly, there are the ways in which the physical creation and manipulation *of other (quasi-)persons* have been imagined. In *The Republic,* Plato envisions a eugenics program of state-controlled procreation (Plato 2000 [est. 380 BCE]), and many cultures have imagined that all sorts of fertility rites and ritual, often including physical interventions such as ointments and potions, can help inculcate desired traits in their offspring. In Greek mythology, the

architect Daedalus develops a contraption allowing a bull to inseminate Pasiphaë, who then gives birth to the chimeric Minotaur. The Jewish tradition contains multiple versions of the Golem story, some of them, as Bostrom also notes (2005b: 6), casting in a positive light the creation by sages of golems out of clay. The alchemic tradition is rife with similar envisionings. In *Promethean Ambitions - Alchemy and the Quest to Perfect Nature,* William Newman uncovers how the alchemist imaginary foreshadowed multiple of our contemporary bio-ethical quandaries:

> The homunculus, or miniature human created in an alchemical flask, was a topic of discussion already among the medieval Arabs. Could one use this form of generation to alter the sexuality of the child? Why not make a being of extraordinary intelligence, with powers denied to the offspring of normal sexual generation? Was it permissible to use the bodily fluids of the homunculus as a means of curing dangerous diseases? Have we not heard all of these questions discussed recently in the controversy surrounding the artificial selection of gender, the prenatal modification of biological traits, and the use of foetal tissue for medical purposes? (Newman 2005: 6)

Secondly, there are the many ways in which the alteration by humans *of animals and plants* have been envisioned. Erik Parens calls attention to the Biblical endorsement of genetically modifying animals in Genesis 30:38-39. There Jacob, *"the first genetic engineer"* (Parens 2005: 37), brushes goats with rods of poplar and almonds so that they would give birth to the more valuable speckled and spotted kind. This aligns with the widespread, perennial practices of husbandry and horticulture through which mankind has created thousands of fundamentally novel strands of animals and plants (Silver 2006).

Thirdly, there are the ways in which human societies have vividly imagined a 'space of possible modes of being' (Bostrom 2005a) besides and beyond the parochial ontological subset of *human* persons. Indeed, in many cultures, people believe in the *factual* existence of other entities capable of personhood, such as angels, demons, spirits, humanly intelligent animals etc. in all shapes and sizes. These beliefs have the potential to deeply frustrate anthropocentric conceits about human supremacy and uniqueness. Indeed, the humbling or even humiliating effect of envisioning (scores upon scores of) better-than-human life forms plays an important role within the Abrahamic religions. For instance, in George Berkeley's dialogical *Apology for the Christian Religion*, Euphranor tries to set the free-thinker Alciphron straight by pointing out that

> for aught we know this spot with the few sinners on it bears no greater proportion to the universe of intelligences than a dungeon doth to a kingdom. It seems we are led not only by revelation but by common sense observing and inferring from the analogy of visible things to conclude there are innumerable orders of intelligent beings more happy and more perfect than man whose life is but a span and whose place this earthly globe is but a point in respect of the whole system God's

> creation. We are dazzled indeed with the glory and grandeur of things here below because we know no better. But I am apt to think if we knew what it was to be an angel for one hour we should return to this world though it were to sit on the brightest throne in it with vastly more loathing and reluctance than we would now descend into a loathsome dungeon or sepulchre. (Berkeley 1901 [1732]: 190; approvingly cited in Bostrom 2008: 107 and critiqued in Hauskeller 2014: Loc. 3246-3248)[1]

Similarly, it has commonly been presumed (and among the scientifically illiterate, still is) that there is a deep, qualitative diversity among the different peoples, 'ethnicities' and 'races' on our planet. In itself that is an eminently reasonable presumption: across the natural world, one should expect diversity, deep and wide. However, as 20th century science and common experience have pointed out, weirdly enough it just so happens to be that there is almost no significant biodiversity within the human species. *Just so happens to be* merits emphasis here. Our planetary near-uniformity is a great political convenience: it largely excuses us from having to make the actual *moral* exercise of granting equal 'personhood rights' to populations of persons that actually are deeply different and superior/inferior in terms of certain tasks and traits (cf. Crow 1992, Buchanan 2011, and the 2012 debate in the Journal of Medical Ethics, Volume 38, Issue 3). But it is nothing more than the fortuitous result of rambling natural history. Among other things, our lack of genetic diversity is the result of calamities such as the supervolcanic eruption at Toba some 70.000 years ago, which is arguably the chief cause of *Homo sapiens'* ensuing population bottleneck (Ambrose 2003). Meanwhile, for a significant stretch of time we *did* co-exist with deep racial differences between us within the *Homo* genus (cf. infra, Figure 4). For instance, no later than 29.000 years ago, Neanderthals were still roaming around Gibraltar – and it remains a live hypothesis that they actually had equal if not even *greater* potential for cumulative intelligence than us *Homo sapiens* (Stringer 2012). As the entire face of the earth got explored in the previous centuries, a history of extinction and probably some interbreeding had it that it were only groups of differently pigmented *Homo sapiens* that

[1] Interestingly, twenty years after Berkeley, Voltaire presents the very same argument but turns the tables. It is now the free-thinking Voltaire who chastens the vainglorious Christian (Thomist) conceit as if the entire universe revolves around mankind. Voltaire even uses a similar rhetorical tool as Berkeley, only instead of angels Voltaire avails himself of the (proto-science fiction) figures of giant-sized extraterrestrials from Saturn and Sirius, visiting planet earth where they come across tiny *"animalcules philosophes"* with whom they engage in conversation. When the Thomist of the troupe speaks up and solemnly declares that even these extraterrestrial visitors themselves and in fact the entire universe was made by God uniquely for humans, the Saturnian and Sirian giants crack up in thunderous laughter, flummoxed as they are to find *"que les infiniment petits eussent un orgueil presque infiniment grand."* (Voltaire 2014 [1752] : Loc. 343-350: *"that the infinitely small would possess an almost infinitely large vanity"*)

bumped into each other. But we might as well have bumped into some lingering Neanderthals somewhere, or *Homo heidelbergensis*, or indeed, into all kinds of (vastly) 'superior' species that might as well have sprung up out of alternative natural histories.

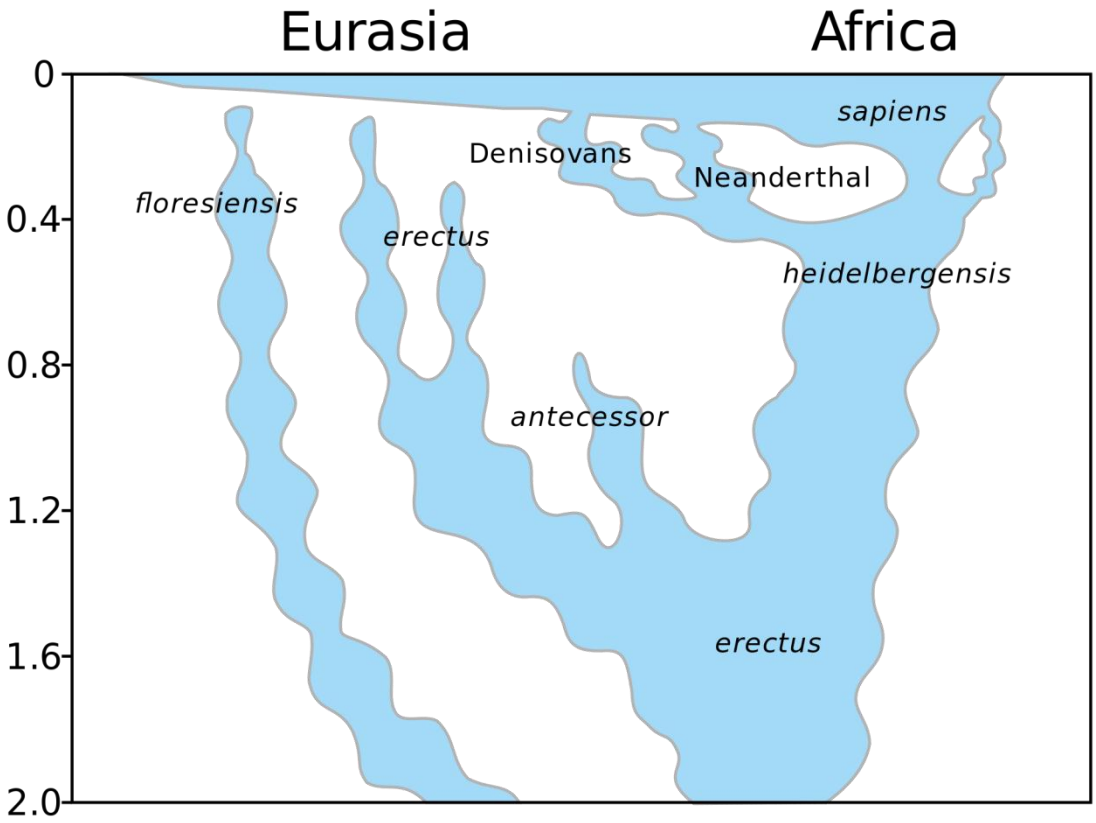

Figure 4 Representation of the natural history of the *Homo* genus (Stringer 2012).

Our planetary solitude is also nothing more than the *temporary* result of natural history. Barring global extinction and barring also the surreal scenario of some world government that would impose biopreservationism *manu militari* until the end of times, sooner or later, biodiversity will re-emerge. As Nicholas Agar acknowledges, his plea to preserve human nature as we know it *"does not depend on the absurd conceit that the human species will last forever. Eventually, should some global or galactic catastrophe not leave us completely without descendants, we'll evolve into beings who are not properly considered human."* (Agar 2010: 198) Indeed, new insights suggest that human mutation has not at all halted after the Agrarian Revolution, perhaps to the contrary, and in a further shock to received 20th century wisdom, Gregory Cochran and Henry Harpending have recently argued that the differences between historical human populations may be significantly less superficial than hitherto assumed (Cochran and Harpending 2009; see also Wade 2014). Finally, our cosmic solitude is probably also only a temporary affair. The Fermi

paradox, for instance, posits the great statistical likelihood of eventual formation of radio-telecommunicating civilizations throughout the universe, some of which – following the putative Drake equation[2] – should eventually come into contact with one another. It is only our lack of epistemic access that allows us to live, for the time being, without any verification of the probable reality of alternative species of persons living out their lives somewhere in the big blind spot in the sky. Even in today's state of great cosmic ignorance, it is perfectly sensible to reinstate, together with Carl Sagan and Michio Kaku (Kaku 2015), the non-parochial and humbling assumption of Berkeley that *"for aught we know this spot with the few sinners on it bears no greater proportion to the universe of intelligences than a dungeon doth to a kingdom."*

The anthropological record thus abounds with accounts of spaces of possible modes of being besides and beyond the human, as well as of ways in which humans can explore those spaces by physically manipulating their own constitution.[3] That said, the following four remarks will, I think, severely deflate the purchase transhumanists can get with such pedigree-pandering.

Firstly, one mustn't gloss over the deep ambivalence which reigns in many cultures over humans trying to take on greater-than-traditional powers. Often this ambivalence ends up being narrated as a tug-and-pull between humans on the one hand and nature, fate, spirits, demons and gods on the other. For instance, in the Gilgamesh epic itself, Utnapishtim berates Gilgamesh for trying to outrun the common fate of humans, judging the endeavour futile and only adding further fear- and fretfulness to life. Indeed, a great many tales do not bode well for the overreaching humans. More often than not, it seems, higher powers end up smiting man down for his presumptuous

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[2] $N = R_* \cdot f_p \cdot n_e \cdot f_\ell \cdot f_i \cdot f_c \cdot L$, where:

N = the number of civilizations in our galaxy with which radio-communication might be possible (i.e. which are on our current past light cone); and
R* = the average rate of star formation in our galaxy
fp = the fraction of those stars that have planets
ne = the average number of planets that can potentially support life per star that has planets
fl = the fraction of planets that could support life that actually develop life at some point
fi = the fraction of planets with life that actually go on to develop intelligent life (civilizations)
fc = the fraction of civilizations that develop a technology that releases detectable signs of their existence into space
L = the length of time for which such civilizations release detectable signals into space

[3] Further examples from within Christianity include the belief in the bodily resurrection of the dead in the afterlife, who then go on living eternally in a gloriously purified and unaging body, and the remarkable ritual of the Eucharist: Jesus' body and blood are thought to literally transubstantiate into wafers and wine which Christians proceed to ingest, doping-like, so as to be boosted towards goodness by having God work upon one's body, from within one's body.

hubris. Instead of cheering man onwards in his Promethean quests (Franssen 2012) and bolstering his confidence, the great anthropological story-book often advises a stance of fearful gratitude and responsibility-reducing resignation. Often, the way to go is to supplicate the higher-powers-that-be and to let them handle the dauntingly big-scale business of human life – *si dieu le veut; insj'allah; not my will, Thy will; que sera, sera; etcetera*.[4] That said, the myriad cultures of magic, religious wonder-working and alchemy do seem to evidence a persistent human tendency to imagine oneself able and morally licensed to concoct all sorts of chemical mixtures and prosthetic contraptions with which to profoundly alter human nature (Newman 2005).

Secondly, there is much to be said against too straightforwardly literalistic interpretations of human story-telling. A refined understanding of mythological and related utterances and performances will note that, despite (stubborn) appearances, these often do not (simply) express what one thinks is factually true (Atran 2002, Van Leeuwen 2014. However, see Boudry and Coyne 2015 for a defense of the view that supernatural beliefs *are* factual beliefs about the world). Moreover, the longings people evoke and satisfy in their narrative-symbolical performances cannot simply be transposed to what they would actually like to see happen in practical-material reality. A classic Christian example here would be the potentially excruciating tedium that might befall those who would literally 'get what they wished for' and find themselves living forever in the cloudy confines of heaven. But, again, that need not be a problem of the heaven-mythos, because literally wanting to hang around immortally in such a heaven is not necessarily what the heaven-mythos *does,* psychologically.

Thirdly, even if the case can be made for a perennial and quasi-universal longing to shed this particular *Homo sapiens* mortal coil, an equally strong case can be made for the presence of a longing that is equally perennial and quasi-universal, namely the longing to escape feelings of futility and forlornness, and to instead feel secure and purposeful. These two longings can come into conflict. For instance, through the religious *Not My Will, Thy Will* mind-set, people try to *"escape from freedom,"* absurdity and purposelessness (Fromm 2013 [1941]; Nagel, T. 2010: Ch. 1; Kahane 2011). Instead, they cultivate a fundamentally *reactive* attitude (often an outright passive and submissive one), hoping to receive some kind of imperative impetus or inspiration. From this reactive attitude seeking to be fed and led by something or someone more profound than one's self, there may be an outspoken openness to dramatic 'born-again' transformations of the self, but

[4] Such 'humility' may cloak ulterior motives such as the desire to outsource responsibility, or, as Maarten Boudry suggested to me in conversation, it may be a rationalization of the evils of life: a way of rendering a factual impossibility more acceptable by moralizing it into a moral impermissibility.

only for those transformations of the self *rooting in Nature or God's command*.[5] This would be compatible with the psychological flip-flop into equally outspoken *closure* to self-transformation *rooting in one's own command*. To wit, the former could be experienced as a way of being 'touched and transformed by god,' the latter as its polar opposite: as an intolerable cutting of one's own existential umbilical cord.

Fourthly and finally, though the anthropological record may show what it will, from an ethical point of view it is possible that human societies throughout the ages and lands should all be judged wrong in their attitudes towards PSS, just like we now also judge them to be wrong with regards to countless other practices that we have come to reject in our contemporary moral orders. Hung in the moral balance, the anthropological record, no matter how impressive, may carry little or no weight when pitted against ethical argument, such as will be developed in the next chapters of this dissertation. That said, it is never unwise to consider how the precepts one comes up with during spells of abstracted philosophical thought can or cannot be mapped unto the human animal in its concrete, contingent historical predicament (Singer 2000; Pinker 2012). Equally, given that reality will often be stranger than fiction, it is never unwise to let empirical exploration open one's mind even further than can be done through thought experimentation (Buchanan 2011).

2.2 Pre-Modern Practices of Physical Self-Shaping

Turning away from how physical self-creation has been envisioned, what kinds of physical self-creation techniques has mankind actually managed to produce throughout history? On that factual front too, it seems, a generalizing case can be made that we have been physically re-working ourselves in myriad ways, often with great tenacity and effectively yielding dramatically altered constitutions and capacities. Here, I will suffice with a very brief breakdown of the anthropological record in two broad categories: physically induced *body* modification and *mind* modification.

As to body modification, one of the richest fields of historical activity lays in our intensive belabouring of our outward appearance (Encyclopædia Britannica 2015). Examples include hair cutting and epilation from the face down to just about any given

[5] Following this line of thought, the rather baffling group of 'transfigurist' Mormons have found a way to give religious sanction to the most radical biotechnological transformations of human biology. The Mormon Transhumanist Association (transfigurism.org) boldly asserts a Christian technophile transhumanism.

nook and cranny; circumcision; castration; corset squeezing; foot binding; limb stretching; skull binding; tooth removal, filing and replacement; earlobe, lip and neck stretching; tanning and paling; piercing all over, often followed by the introduction of all manner of bone, metal, etc. A second broad domain of explicit alterations of our outward appearance revolves around the treatment of our skin, hair and nails as a canvas of sorts, reworking them with all kinds of painting, scarification and tattooing techniques, resulting in altered textures, colours and patterns. Such 'refigurations' can serve multiple symbolical functions beyond embellishment (which itself will already be of supreme importance to many), such as indicating remembrance, mourning, belonging, status etc. Moreover, they can be imagined to provide magical enhancements.

Beyond symbolical function and magical make-belief, it should be stressed that a number of pre-modern body modifications bring about effectively altered or enhanced function. For instance, consider the plethora of ointments smeared on the skin to enhance resistance to cold, heat, insect bites, plant stings, etc. Consider also the penis pins among the Sulawesi and Dayak peoples of Indonesia and Borneo, serving the purpose of enhancing sexual arousal of women and men alike – a practice that inspired, via the 'modern primitives' and the 'body modification movement' (Pitts 2003), the contemporary piercing technique known as the Royal Albert. In the same ballpark, consider also the century-long Christian castrati culture (ended by a ban by Pope Pius X in 1903), where boys' bodies were modified by removing their testes, for the purpose of enhancing the tone of their ecclesiastical chants in the Roman Catholic Church (de Marliave 2011: 167). Physical castration was also sometimes used to enhance sexual temperance and chastity, and it is surprising to note how certain communities of ultra-Orthodox, modernity-resisting Haredi Jews are nowadays pursuing such physical piety-enhancements through the administration of ultramodern antidepressant drugs because of their side-effect of suppressing sex drive. They also hope these drugs can function as a homosexuality-conversion technique. The high-ranking Israeli psychiatrist Omer Bonne has openly endorsed these enhancement practices, confiding that:

> when I was young, idealistic and less experienced, whenever I had a case of homosexuality, masturbation or, as Haredim put it, 'compulsiveness in sex' I would say: 'Homosexuality is not a mental problem, masturbation is certainly not a mental problem or even a medical problem. I do not treat people who do not have a medical problem.' [...] Over the years, I saw that people who do these 'awful' things suffer terribly because of the conflicts they create. Those urges, impulses or behaviors place them in conflict with their society, and then they become depressed. In these cases, I would indeed prescribe medicines that block these conditions. (Bonne in Ettinger 2012)

Having broached these cases of castration and sex-drive suppressing drugs, I can turn to pre-modern techniques of mind modification. Mind modification has most commonly been pursued by way of ingestion, inhalation or intrusion of all manner of substances. Traditional chemical concoctions of choice or convention include teas, opiates, coffee, marihuana, coca, alcohols etc. Indeed, once again the earliest written documents of mankind, the Sumerian clay tablets, already provide a recipe for the 'hul gil' – the 'joy plant' – that is the opium poppy (Dormandy 2012). Egyptian papyrus scrolls written up 3.500 years ago also mention opium's enhancement use of rendering noisy babies silent (Encyclopédie Larousse 2015). To pick a final illustration from the vast anthropological record, consider the alcoholic grape skin extract Zulu warriors used to boost their strength and endurance prior to battle – a concoction that came to be dubbed "dop" in Afrikaans, which in turn gave rise to the English word 'doping' to refer to the administration of drugs to race horses to either boost or curb their racing ability (Rosen 2008: viii). In sum, drugs have been used to alter one's state of mind in all kinds of directions and with all kinds of amplitudes, durations and other modalities. Although the performance-*enhancing* effects of several of these 'traditional' enhancing agents may turn out to be quite modest and indeed, upon objective measurement, occasionally *negative* (see for instance the overviews of scientific assessments presented in British Medical Association 2007 and Comité Consultatif National d'Éthique de la France 2013), phenomenologically they will nonetheless often be earnestly experienced as dramatic upheavals of feeling, thought and ability – as very profound alterations of one's mind and of one's self (for example, Huxley 2009 [1954]).[6]

2.3 Modern Visions of Physical Self-Shaping

With the onset of modern science and technology, pre-modern visions and practices of physical self-constitution became supplemented with a much more explicit and confident vision of humans' potential to re-constitute their own nature, as well as with an ever-widening array of effective techniques of physical self-constitution. Meanwhile, cultural upheavals weakened the degree to which individuals were submerged in socially prescribed roles. In very different ways and not without a great deal of inner

[6] Noteworthy are also the multifarious practices of substance (or sensory) *deprivation,* which set off internal biochemical cascades conducive to some transformative end, such as practices of self-starvation, immobilization, confinement and silence to generate extraordinary mental states, possibly experienced as epiphany or ecstasy (Bonte 2010).

tension, the Renaissance, Protestantism, the Enlightenment, Romanticism, political liberalism and consumer capitalism all validated a moral culture of self-exploration and -expression. Self-critical sincerity (Trilling 1972), individual autonomy (Dworkin 1988), self-reliance (Emerson 1994 [1844]) and personal authenticity (Taylor 1992) – these all mark different aspects of the great *"inward turn"* (idem) within modern moral culture.

Without much historiographical ado, I will use the phrase 'proto-modern' to refer to the periods and places wherein there emerged a newfound *"idea of* vita activa*, an activistic stance toward the world[,] a central theme of Western culture since the Renaissance"* (Berman 1988: 92), yet wherein the human condition remained dominated by natural processes that were practically impervious to human bidding and design. By and large, human life remained helplessly subjected to Nature's dictates of nightfall, seasons, tides etc. Traversing physical distance remained imposing. Medicine remained largely impotent to restore health or regulate fertility. Nevertheless, proto-modernity is characterized by a dawning consciousness that human ingenuity might substantially push back the degree to which life had to be lived in fatalistic awe and resignation. *The future* here on earth became a focal point, competing with and ultimately overtaking the focal points of bygone Golden Ages and of the Great Beyond, the otherworldly hereafter. Open-ended progress became a practical project, and concrete betterment could be expected in one's own generation or the next.

Important works of 'proto-modern' visions include Pico della Mirandola's *Oration on the Dignity of Man* (1999 [1486]), Tommaso Campanella's *City of the Sun* (1992 [1623]), Francis Bacon's *New Atlantis* (2012 [1627]) and René Descartes *Discours de la Méthode* (2011 [1637]). Campanella for instance envisioned a man-made 'ideal city' built around piety, fellow-feeling, insight and technical prowess. Human reproduction would be managed collectively in a eugenic effort to purify and perfect our biology. In Francis Bacon's utopian vision, science and technology take centre stage. In this trailblazing text of the Western science & technology culture, Bacon delights in envisioning a cornucopia of techniques for altering and enhancing the human body. For instance, he imagines *"a water [for] prolongation of life," "fair and large baths [...] for the confirming of [man's body] in strength of sinewes, vital parts, and the very juice and substance of the body."* Elsewhere he has a panoply of doping in mind, envisioning *"meats also and breads and drinks, which taken by men enable them to fast long after; and some other, that used make the very flesh of men's bodies sensibly more hard and tough and their strength far greater than otherwise it would be."* Crucially, in Bacon's Atlantis, these enhancement techniques are not simply plucked from nature nor the product of magic, as for instance in the ancient Gilgamesh epic. No, all these concoctions spring from human initiative and ingenuity: a programme of disciplined scientific inquiry and technological research & development, *"that thereby we may take light what may be wrought upon the body of man."* (Bacon 2012 [1627]: 31-34) At the same time, however, Bacon takes great care not to sever his 'existential umbilical cord' with God and Nature. Although he does launch a rapturous vision of *"wholesale redesign*

of human nature" (Kass 2002: 2), Bacon tries his best to keep the disenchanting consequences of his domineering vision under wraps. He roots his human enhancement enterprise in a mind-set of religious submission and supplication:

> We have certain hymns and services, which we say daily, of Lord and thanks to God for his marvellous works: and forms of prayers, imploring his aid and blessing for the illumination of our labours, and the turning of them into good and holy uses. (Bacon 2012 [1627]: 39)

Visions of effective human enhancement techniques can also already be found in René Descartes' writing. Descartes entertained high hopes that the steady advances within therapeutic medicine would sooner or later lead into enhancement medicine:

> the mind depends so greatly on the temperament and on the disposition of the organs of the body that, if it is possible to find some means to render men generally more wise and more adroit than they have been up until now, I believe that one shoud look for it in medicine. [E]verything known in medicine is practically nothing in comparison with what remains to be known, and [...] one could rid oneself of an infinity of maladies, as much of the body as of the mind, and even perhaps also the frailty of old age[.] (Descartes 1998 [1637]: 35)

Such techno-utopian thinking came to fruition in an intellectual climate that was in part formed by the trailblazing likes of Pico della Mirandola.[7] In what later took the title of the *Oration on the Dignity of Man,* one-and-a-half century prior to Campanella and Bacon, Mirandola proclaimed an iconoclastic brand of humanism in which the allegorical gods bellow down to Adam:

> Adam, we give you no fixed place to live, no form that is peculiar to you, nor any function that is yours alone. According to your desires and judgment, you will have and possess whatever place to live, whatever form, and whatever functions you yourself choose. All other things have a limited and fixed nature prescribed and bounded by our laws. You, with no limit or no bound, may choose for yourself the limits and bounds of your nature. (Mirandola, 1999 [1486])

In one usage of the phrase, proto-modernity turns into 'modernity' proper when such 'mere visions' of the *vita activa* were followed by a stream of technologies (as well as of rationalized schemes of social, political and economical organization) of such transformative power that this sparked a widespread sensation as if *"all that is solid melts into air"* (Marx and Engels 2010[1848], Berman 1988). Future-oriented belief in material

[7] The ways of Mirandola's actual influence in intellectual history have been winding, however. For a closer scrutiny of the (non-)impact of Mirandola's writing on different eras and environments, see Copenhaver 2012.

betterment in the *Jenseits* becomes salient, and *human (in)activity* comes to be experienced as a primary force in our existence alongside the forces of God, Nature or Fortune:

> The bourgeoisie, in its reign of barely a hundred years, has created more massive and more colossal productive power than have all previous generations put together. Subjection of nature's forces to man, machinery, application of chemistry to agriculture and industry, steam navigation, railways, electric telegraphs, clearing of whole continents for cultivation, canalization of rivers, whole populations conjured out of the ground - what earlier century had even an intimation that such productive power slept in the womb of social labor? (Marx, quoted in Berman 1988: 93)

In general, our surrounding biotope has proven much easier to transform tha our inner biology. Similarly, it has often proven much easier, more effective and more practical to *add tools* to our bodies instead of trying to retool our bodies themselves. Therefore, as in Marx' evocation, that 'outward turn' of our transformative ability boomed first, and its 'inward turn' has been coming around the bend at a much slower pace. Insofar as our technology has managed to make inroads into human biology, so far it has mostly done so in *therapeutic* forms, the simplest explanation for which is again a practical, not a principled one: in general, *repairing* the body is simply much easier than *remaking* it. Nevertheless, at the turn of the 18th century, many Enlightenment thinkers already entertained hopes of technology turning inward to transform and enhance our biological defaults. For instance, as part of his *"doctrine de la perfectibilité indéfinie de l'espèce humaine,"* the marquis Nicolas de Condorcet saw the progression of medicine spontaneously leading into opportunities for enhancement, of which he asked the question:

> Would it be absurd now to suppose that the improvement of the human race should be regarded as capable of unlimited progress? That a time will come when death would result only from extraordinary accidents or the more and more gradual wearing out of vitality, and that, finally, the duration of the average interval between birth and wearing out has itself no specific limit whatsoever? No doubt man will not become immortal, but cannot the span constantly increase between the moment he begins to live and the time when naturally, without illness or accident, he finds life a burden? (Condorcet 1979 [1793-1794])

During the 19th century, science fiction and 'futurism' started to become standard fixtures in the intellectual life of modern technological societies, and the notion of PSS has been at the centre of science fiction and futurism since their inception (Van den Berghe 2008; Davis 2015). The *moral* inward turn towards notions of self-expression and *Bildung* was thus joined by a *technological* inward turn in which the literal rebuilding of the human body and mind was envisioned.

What marks the fundamental difference with religious and magical envisionings of the 'space of possible modes of being,' is that this science-based speculation takes place within three methodological constraints. Firstly, science fiction and futurism tend to centre on *naturalistic* possibility – supernatural notions are often wholly discarded, and when they are still present[8], a focus on the natural side of things will still be central. Secondly, they tend to focus on what *we* (or beings like us or related to us, such as our distant biological descendants, or the artificial intelligences we might one day spawn, cf. Moravec 1998) might come to experience in the future. Thirdly, they are characteristically *future-oriented.* Futurism has the aim of actually telling the future, and thus tries to devise methods to provide minimally accurate forecasts. In futurism and 'future studies,' the spirit is that of practical anticipation, which often dramatically reduces the scope of the time period taken into consideration to the next 50 to 100 years. When these additional constraints are lifted, that scope can be enlarged dramatically. Both science fiction and futurism can then explore all things (naturalistically) conceivable, venturing into guesstimates about 'ultimate events' and 'end times.' This opens the door for the 'extremism of extrapolation' that is characteristic of techno-utopian transhumanism, such as when Bostrom allows his 'space of possible modes of being' to include *"what is possible or permitted by the physical constraints of the universe."* (Bostrom 2005a)

The accelerating rate of disruptive technological change witnessed in the 19th and 20th century also gave rise to *"future shock"* (Toffler 1970): chronic challenges of adaptation to the cultural and economic upheavals induced by new technology. Certainly after the sudden invention of the nuclear bomb, it became reasonable to assume a state of constant apprehension about the (near) future. The continuation of our entire lifeworld increasingly became a matter of human responsibility, which led into the current debates on how humanity has created a new geological era – the Anthropocene (Crutzen 2002) – as well as an integrated whole of techno-industrial processes – the Technium (Kelly 2011) – that, ironically, seems to outgrow human control. Developments in nanotechnology, bio-engineering and computer technology all seem to carry a potential for devastation. A classic and influential statement of this apprehensive state can be found in 'Why The Future Doesn't Need Us,' the foreboding *Wired* essay of Sun Microsystems co-founder Bill Joy that shook up Silicon Valley at the turn of the millenium:

[8] Indeed, as Erik Davis amply demonstrates in *Techgnosis: Myth, Magic and Mysticism in the Age of Information* (Davis 2015) to this day, religious and magical thought continues to crop up in the scientific and technological imagination.

> The experiences of the atomic scientists clearly show the need to take personal responsibility, the danger that things will move too fast, and the way in which a process can take on a life of its own. We can, as they did, create insurmountable problems in almost no time flat. We must do more thinking up front if we are not to be similarly surprised and shocked by the consequences of our inventions. (Joy 2000)

Given that the visions of technological alteration of the natural world and our own inner nature are increasingly met with actual technological powers, those visions have had to be translated into actual policy measures. Julian Huxley, first director of UNESCO and coiner of the phrase 'transhumanism,' spoke of how

> The human species can, if it wishes, transcend itself – not just sporadically, an individual here in one way, an individual there in another way, but in its entirety, as humanity. We need a name for this new belief. Perhaps transhumanism will serve: man remaining man, but transcending himself, by realizing new possibilities of and for his human nature. (Huxley 1957: 17; see also "Eugenics in an Evolutionary Perspectice" in Huxley 1964)

Huxley was also an active member of the eugenics movement, which was arguably the first large-scale attempt to apply a form of governance to the capacity to alter human biology. Indeed, the first half of the 20th century was marked by the rise of large-scale, state-sponsored programmes of eugenics in many Western countries and beyond, some continuing to operate under that name up until the 1960s. In the main, eugenics programmes were driven by (factually and morally wrongheaded) theories about the hereditary 'degeneration' of human health, intelligence and morals. This was believed to be the result of a weakening of natural selective pressures on human populations, as well as of a disproportion in the reproductive rates between humans of 'inferior and superior stock.' The solution was often believed to lie in policies of 'negative eugenics' (attempting to reduce deteriorations of health, intelligence, character and 'racial purity' through, among other tactics, (forced) sterilization programmes and bans on miscegenation) and 'positive eugenics' (attempting to spur the prevalence of desired traits in future people, through, for instance, arranged marriages and stimulation of childbirth among 'fitter' populations such as in the U.S. 'Fitter Families' contests (Boudreau 2005, Selden 2005), the Nazi *Lebensborn* programme, etc.). These policies were often authoritarian and informed by racist and classist delusions, but there was also a great eugenicist fervour among both socialist and liberal thinkers (Kevles 1995, Van den Berghe 2008). While the phrase 'eugenics' became heavily discredited after the atrocities of WWII, some authors are recuperating that term to describe new policy proposals concerning the newly accrued powers to select and influence the traits of future persons. They do so in part to undo historical amnesia about the many non-fascistic historical forms of eugenic thought, to avoid euphemistic rhetoric, and to stress-test

false pieties as if anno 2015 our moral institutions are so robust that it is unthinkable that we would ever regress into policies akin to the eugenics of old. Today, new defences are mounted of a 'liberal eugenics' based on a staunch defence of parental procreative liberty and an interest in the wellbeing of future persons (Agar 2004). This is presented as an antipode to the authoritarian state eugenics that prevailed in recent history. Indeed, some point out a deeply ironic problem about supposedly 'anti-eugenicist' positions such as that of Jürgen Habermas (2003). Unwittingly, state-issued bans on procreative choice may amount to a form of state eugenics themselves – a 'nature eugenics' or 'status quo eugenics' forced upon the citizenry:

> To a certain extent [...] the prohibitionists are the ones upholding the eugenic side of the debate. It's those who oppose individual and family genetic choice who have, in essence, decided that there's a certain 'correct' genetic heritage for humanity (the one we have today) and that the populace should not be allowed any choice in the matter. The relatively small number of advocates of genetic choice, on the other hand, are not trying to impose their opinion on the rest of the country or the rest of the world. (Naam 2005: 166-167; see also Agar 2004, Hughes 2004, Van den Berghe 2008 and Bonte 2015c)

2.4 Modern Practices of Physical Self-Shaping – A Taxonomical Overview

In the following overview, I seek to do justice to the diversity of the actual practices behind the 'enhancement debate.' What, precisely, do we talk about when we talk about 'physical self-shaping' and its subfield of 'enhancement'? To answer that question beyond the preliminaries of the introductory chapter, I will cast the 'space of possible modes of being' that is already available to us today in a taxonomical structure. The result should be a clarified conceptual understanding of the notion of PSS and the many ways it can already be practiced anno 2015.

2.4.1 Technical, Physiological and Functional Domains

In his article "Moral Status and Human Enhancement," Allen Buchanan introduced a helpful distinction between 'modes' and 'kinds' of enhancement (2009: 350; 2011: 1-34). Kinds refer to *functional* domains such as 'appearance,' 'physique,' 'cognition,' etc. Modes refer instead to *technical* domains such as 'pharmacology,' 'surgery,' 'genetic selection,' etc. A third way to carve up the field of body modification techniques is to go by

physiological domains and their respective professional specialisms such as 'immunology,' 'dermatology,' 'endocrinology,' etc. These three sorts of distinctions can be made at varying levels of generalization/specification. Exhaustive specificity would be of little use here, so I will run through these domains on rather high levels of abstraction, beginning with the technical domains of self-shaping techniques.

2.4.1.1 Technical Domains or 'Modes'

Pharmacological self-shaping techniques revolve around the introduction of chemicals into the human organism in order to shape oneself. Examples are legion. Perhaps the most influential modern pharmaceutical techniques for self-shaping are birth control pills, which came to widespread use during the 1960s. These have deeply transformed the nature of female fertility by making the state of fertility one that women can opt out of in a highly discreet, self-managed and effective way. Moreover, for women who have made a routine of it, *infertility* becomes their everyday default condition and fertility becomes an opt-in condition. Remaining within the reproductive sphere, abortion pills, developed in the 1970s and 80s, provide effective control over one's reproduction post-conception. Turning to the other end of life, modern pharmacology has yielded a host of drugs with which to exert control over the time and type of death, some providing the option of doing so in relatively quick and painless ways. Besides drugs to control the beginning and ending of a life, there is the wide range of pharmaceuticals which can modify aspects of one's constitution such as one's mood, cognition or physical ability.[9]

Here is a small indicative selection of such self-shaping pharmaceuticals. A new category of 'nootropics' is emerging. These nootropics can be put to (limited and debatable, see for instance Comité Consultatif National d'Éthique 2013) 'cognitive enhancement' use. Examples include Ritalin (first synthesized in the 1940s) to enhance concentration or Modafinil (first synthetisized in the late 1970s) to enhance wakefulness. Among the modern pharmaceuticals that enhance physical ability, anabolic steroids and erythropotein are arguably the 'big two.' Betablockers provide

[9] There are also novel nutritional techniques to modify oneself. The well-timed drinking of beetroot juice, for instance, is an example that has recently received substantial empirical corroboration (Cooper 2012). What unites pharmacological and nutritional techniques is that they both revolve around the introduction of biochemical compounds into the body. Indeed, what differentiates them is perhaps not so much a categorical difference between two kinds of compound-body interactions. Rather, the difference may largely derive from a cluster of procedural, institutional and cultural aspects. Contrasted to nutrition, in general pharmacological compounds are a far more professionally distilled and processed category, appearing predominantly in medical (and medicalized) cultural spheres involving GPs, pharmacists, hospitals and pharmaceutical manufacturers.

another example. These have come to be used by actors, musicians, athletes and public speakers to reduce tremors in one's movements and quivers in one's voice.

Techniques for *surgically* shaping the self (Parens 2006) can be divided into those that involve implants or transplants and those that don't. Examples of the latter include female and male circumcision, flop-ear and tooth 'correction,' removals of moles and other skin formations and colorations found to be a nuisance, etc. Interestingly, all of the above are applied on quite massive scales on young children in the West for enhancement purposes (even if cloaked underneath or coincidental with medical aims, cf. McKenny 1997 on this ambiguity in general, and Ackermann 2007 for a revealing history of the enhancement aims pursued in orthodontics, such as a 'greco-roman' face, from the 19th century to this day). This invites an interrogation of cultural biases and the role of the dumb force of habituation in how different body modification techniques come to be (dis)valued. For example, the above techniques are palpable or celebrated by many in the West while others are met with great hostility (such as eyelid reconstruction or breast implants for teenagers). A related interrogation of potential hypocrisy involves the double standard some apply in criticizing modern body modification techniques on the one hand (for example, penis enlargements, or the surgical nerve intervention feminist Naomi Klein underwent to revitalise her orgasmic capacities, cf. Klein 2013) while celebrating pre-modern body modification techniques and the diversity of the anthropological record on the other hand (for example, the Dayak and Saluwaku penis pins to serve both male pride and female pleasure discussed above; on this double standard towards aesthetic resculpting of the body in Western and other cultures, see Eskenazi 2007).

A telling example of *transplant* surgeries are hair transplants. Despite the massive financial incentives and the substantial investments these lines of research receive (often window-dressed by appealing to the more 'medical' aim of resolving *female* baldness) and the fact that hair growth has been passionately pursued since time immemorial (Kuntzman 2001), progress in this relatively simple domain has been slow. As such, our collective continuing baldness serves as an excellent *vanitas* testament to the persisting impotence of humans to resculpt themselves. Another curious example is that of ulnar collateral ligament (UCL) reconstruction aka 'Tommy John surgery,' a procedure that strengthens the elbow by grafting on pieces of tendon from other parts of one's body or from a cadaver. This makes it a promising enhancement intervention for baseball and golf players, along with Lasik eye surgery which can provide better than 20/20 vision – a marked advantage on and off the sporting pitch. Interestingly, these forms of 'surgical doping' meet with much less resistance than pharmaceutical doping techniques (cf. infra, Chapter 3).

Turning to *implant* surgeries, a further basic distinction can be made between the implantation of non-mechanical, mechanical or computerized prostheses, respective examples of which include saline or silicone pouches; prostheses with joints, springs,

valves and the like, some of which provide (partial) functional enhancements, such as the 'Cheetah' prostheses to replace one's lower legs and which can boost one's sprinting capacity; or the bionic foot prostheses being developed at MIT by Hugh Herr, himself an amputee, which provide an ability for energy-efficient marching that surpasses that of default flesh and blood feet (Herr et al. 2003). Further examples include the cochlear implants that restore hearing for certain types of deafness, and which allow for a controlled modulation of the way one picks up sounds; the artificial voice synthesizer which allow for a particular kind of controlled modulation of the way one emits sounds (for example, the case of Stephen Hawking who switched from a voice synthesizer with an American accent to one with a British one) ; and techniques of deep brain stimulation inserting electrodes into one's brain which allow for a host of mental self-shaping effects, including inducing dramatic changes in perception, mood and even personality (cf. Chorost 2005 for an overview of the state of the art of bionics, including a personal account of *"becoming part computer"* via his cochlear implant).

A third general category of modern self-shaping techniques revolve around the *exposure of the body to external physical stimuli*. Examples include the exposure of one's skin to UV rays via lamps or bleaching to alter one's skin colour; hypoxic chambers or 'altitude tents' to increase one's tally of white blood cells and increase endurance (Cooper 2012); transcranial magnetic stimulation to enhance certain cognitive capacities (Comité Consultatif National d'Éthique 2013); etc. As discussed in the introduction, this category of techniques can be stretched so far that it becomes conceptually trivial. After all, one could argue that even the exposure to the sound waves of speech produces changes in one's brain chemistry, so that *every* interaction one undergoes becomes a form of 'physical' self-shaping. This is a second tactic pro-enhancement authors can use to trivialize the novel body modification techniques (the first one being the 'Gilgamesh tactic' noted earlier, of pointing out the historical and anthropological ubiquity of body modification aspirations and practices, cf. supra 2.1).

A fourth and final category of modern self-shaping techniques I will discuss here is that of *selecting between bodily substrates* in the sphere of reproduction. These do not work *upon* a body so much as *between* bodies. Pre-implantation genetic diagnosis (PGD), for instance, makes possible the selection, from a set of analysed embryos, of an embryo which is deemed better in some way, allowing that embryo to come into full fruition rather than others. Other examples can also be found in techniques that allow for selection from a set of gametes – sperm cells or ova – in order to increase the likelihood of certain desired pregnancy outcomes. For instance, the technique of 'sperm sorting' can separate the X- from the Y-chromosome sperm cells (as well as detect, via spectroscopy, certain forms of DNA damage) by passing a volume of sperm cells through a flow cytometer. Via intracytoplasmic sperm injection (ICSI), a single sperm cell of choice can then be directly injected into an ovum. If successful fertilization and gamete development occurs, this embryo can then be transferred into a women's uterus. These

techniques operate in the liminal zone where 'self-shaping' turns into 'other-shaping,' namely the shaping of one's future child.

2.4.1.2 Physiological Domains and Medical-Professional Domains

One can also broach the debate on human self-shaping from the perspective of particular medical professionals who begin to provide techniques that overshoot or deviate from the mark of therapy. From this angle, it makes sense to distinguish between kinds of self-shaping techniques along the lines of the distinct medical-professional institutions in which these bodily modifications will be carried out. One can then speak not only of the well-established institutions of cosmetic surgery and cosmetic dermatology, but also of 'cosmetic endocrinology' (Ho 2006) which uses hormonal pathways to try to influence aging, growth, metabolism, fat, muscle, weight, mood and sexual function; 'cosmetic neurology' (Chatterjee 2004) to try to enhance movement, mentation and mood; 'cosmetic genetics' (Goering 2008) to try to enhance the genetic endowment of one's future children; and so on across the spectrum of medical disciplines and institutions.

Using this approach can be helpful to foreground the thorny thicket of institutional issues that self-shaping techniques raise. These include the question whether medical professionals should be forbidden to apply their know-how beyond the traditional therapeutic remit (Pellegrino 2004); whether public funds should ever be used to help people enhance themselves, for instance to avoid an excessive societal rift between 'biopoor' and 'biorich' (Mehlman 2009a); whether public health institutions should cover the expenses when attempts at enhancement go awry (Comité Consultatif National d'Éthique 2013); whether public institutions, employers or insurers might coax or compel their citizenry, employees or insurees to enhance themselves (Buchanan 2011); whether medical professionals whose schooling has been provided in part by public funds should be disallowed or taxed for jumping ship and applying their know-how to cater to elective demand and whether a (literal) wall of separation should be erected, with doctor's offices, clinics and hospitals being exclusively committed to therapeutic medicine and 'elective' or 'wish-fulfilling medicine' (Asscher, Bolt and Schermer 2012; Hotze et al. 2011) having to open shop in their separate *"schmoctor"* (Parens 2014) offices; etc. etc. However compelling and pressing, these institutional issues fall outside the focus of this dissertation. Suffice it to say here that this thicket of institutional issues demonstrates how the unitary, 'Hippocratic vision' of medicine as being the business of *restitutio ad integrum* and nothing else seems increasingly untenable (Wiesing 2009).[10]

[10] Some argue that medicine has *always* had an 'utopian' side to it, cf. McKenny 1997.

2.4.1.3 Functional/Phenomenal Domains or 'Kinds'

The above two categorizations – technical and biological/institutional – are probably not how the average person faces the world of self-shaping techniques. A common and intuitive way to categorize different kinds of self-shaping techniques, would be to distinguish between what Buchanan calls 'kinds.' These label different clusters of self-shaping techniques according to the kinds of functional, phenomenal effect they bring about. In keeping with the ways these kinds of self-shaping practices are most commonly carved up in the literature, we can thus distinguish between the self-shaping of one's (a) appearance; (b) physical ability; (c) perception; (d) lifespan and youthfulness; (e) cognition; (f) affect and emotion; (g) motivation and behaviour; and (g) valuation (including, but certainly not reduced to, morality). Each kind of self-shaping practice can be broken down into further taxonomies, and such taxonomical exercises can help to sort out whether a certain self-shaping technique really is producing the kind of change it purports to produce or not (for example, Raus et al. 2014).

2.4.2 'Material' Aspects: Physicality, Internality, Alterity and Artificiality

In the introduction I addressed how the concept of a 'physical self-shaping technique' can be trivialized by making *any* physical body-world interaction fit this bill (cf. supra 1.3). I will now present a cluster of conceptual distinctions with which to set apart physical self-shaping techniques *proper* from self-shaping writ large. This cluster revolves around four 'material' aspects peculiar to these physical self-shaping techniques, namely their *physicality,* their *internality,* their *alterity* and their *artificiality*.

Physicality. What sets apart physical self-shaping techniques from self-shaping in general is that they are physical, involving such things as splicing prostheses into the flesh or ingesting pharmaceuticals. The physicality of such interventions becomes very peculiar when the physical intervention generates mental effects, such as changing mood. Such crossings of the mind-body barrier awaken us to the dramatic extent to which our mental lives run on physical substrates, and such awakenings can rattle (folk-)psychological and philosophical beliefs about the nature of the mind-body divide (cf. Bloom 2009). Physical self-shaping techniques provide vivid demonstrations of the possibility to create mental phenomena on the basis of the chemical, electrical or magnetic stimulation of the brain. Adherents of physicalist theories of mind can use these examples as partial proof for their belief that *all* mental phenomena are ultimately determined by physical substrates (Stoljar 2015). And this, in turn, can lead them to dispel the felt distinction between such *explicitly* physical self-shaping techniques and the supposedly non- or less-physical ones such as sensory stimulation, linguistic

interaction or conscious effort. These 'conventional' techniques of self-shaping are often experienced as mental to begin with. Therefore, they can be thought to be (in general) non-intrusive upon the mind. Furthermore, mental impulses of effort can be seen as a legitimate way to reshape the body, because through effort this reshaping will have resulted from one's own active, conscious involvement. Effortful self-shaping thus fits the 'folk psychological' dualistic experience of the mind as *"a control panel with gauges and levers operated by a user – the self, the soul, the ghost, the person, the 'me'"* (Pinker 2002: 42). In the scope of this dissertation I cannot enter into a detailed discussion of the theory of mind. I will only note that even on a physicalist theory of mind, one can still uphold a phenomenological distinction between *saliently* and *tacitly* physical self-shaping techniques. This distinction is then not necessarily based on physicality *per se,* but rather on a *(folk-)psychological differentiation* between certain interventions as 'physical' and others as 'mental' or 'immaterial.'

Internality (and related notions of *fixity* and *undetectability*). This criterion helps set physical self-shaping techniques apart from enabling physical entities that remain external to the body, such as tools. For instance, to carry an identifying tool, such as an identity card or a smartphone that wirelessly emits signals of one's presence to surrounding internet-connected people and machines, is not fully equatable to an *implanted* radio-frequency identification (RFID) microchip that emits similar identifying signals.[11] The internality of the RFID chip comes with a greater fixity. This has the advantage of being hard-to-loose, as well as the potential disadvantages of being hard to get rid of, hard to access and hard to update. Indeed, in this sense external tools will often provide functional enhancements that are much more flexible and powerful. Transhuman fantasies of integrating all kinds of abilities *into* one's body will therefore often be a fool's errand. Consider the abilities of flight, heavy lifting, drilling, micro- and telescopic vision etc. It will be many times more effective and less cumbersome to simply connect one's body to a plane, truck, microscope and telescope respectively, and disconnect from them once the task for which these tools are optimized is done. Internality can also produce significant changes in detectability. Whereas RFID implants allow for a new kind of detectability, aesthetic surgeries or athletic doping agents for instance allow for new kinds of *un*detectability, which in turn can spark cloak-and-dagger attempts to detect these internal alterations nonetheless. For instance, in a world of aesthetic surgery and doping, people who have eugenic hopes for their future children may want to start screening their spouses to ensure that their beauty, physical

[11] Such technology was first used for tracking livestock, and is today being experimented with to keep track of one's children, allow high-security clearance or to facilitate cash-less payment as has been done at the Baja nightclubs of Barcelona and Rotterdam (Losowsky 2004).

and intellectual abilities are 'all-natural,' in the hope of passing on these traits to their offspring.[12]

Alterity. Because physical self-shaping techniques enter or influence the body from without, they confront us with the liminal zones between the external and the internal, between the other and the self. Successful transfers from the external to the internal, from the other to the self can require specific processes of appropriation, habituation, identification, and integration into one's sense of embodied self (Slatman 2008; 2014; Damasio 2010; Ramachandran 2011). If these processes are botched, feelings of intrusion and alienation can ensue. I will touch upon these issues further in the chapters on doping and chemical castration. To close on a more general point, it is interesting to note how we can conceptualize a gradient scale, with at the one end tools that remain wholly 'other' – external to the body, operated upon in a strongly instrumental fashion, and/or with which one has virtually no sense of identification – and at the other end internalized physical agents such as pharmaceuticals or prostheses that become seamlessly integrated in one's sense of self, used with the same unthinking spontaneity with which one lifts one's arm (see Slatman 2008; 2014 for an extensive exploration of these gradients).

Artificiality. Typically (but not necessarily), physical self-shaping techniques contain an aspect of artificiality. An act of physical self-shaping can have three artificial aspects, each of which can be juxtaposed to a respective notion of 'naturalness.' To begin with, there is the issue of *material* artificiality, referring to the fact that the self-shaping *materials* are man-made (for example, extracted and processed cocaine in contrast to coca leaves plucked straight from the plant). To the extent that a person's body becomes constituted by man-made artifice, the image of such a deeply 'self-made man' can spark feelings of existential circularity, poignantly evoked in Shane Willis' play on Escher's self-drawing hands, which I found most fitting as the cover image to this dissertation. There are two further notions of artificiality/unnaturalness that often crop up in the physical self-shaping debates. Setting these apart helps to clarify potential confusion about the semantics of 'artificiality/unnaturalness' (see Kaebnick 2014 for an extensive exploration). However, because these further notions are not related to materiality, I will highlight them only briefly here. Firstly, there is the issue of *dispositional* artificiality, referring to the 'artificiality/unnaturalness' of the *state* into which one has shaped oneself ('artificial' here as out-of-the-ordinary, abnormal, possibly evaluated as inauthentic, for example, the energetic state one is in due to cocaine snorting or coca

[12] Cf. infra, 3.3.4. In this regard, Loren Eskenazi notes how the English Parliament enacted a law in 1770 that allowed men to annul their wedding to a wife of which it has been found that she had 'fooled' her husband into marriage *"by the use of scents, paints, cosmetics, washes, artificial teeth, false hair, Spanish wool, stays, hoops, high-heeled shoes, or bolstered hips"* (Eskenazi 2007: 13).

leaf chewing in contrast to a person's normal, less energetic state). Secondly, there is the issue of *volitional* artificiality, referring to the fact that the self-shaping was a *deliberate* act (the fact that one's mode of being is the product of one's own volition and decision instead of the result of an involuntary process, for example, being intentionally energetic due to cocaine/coca leaf use in contrast to being a very energetic person by default).

In sum, physical self-shaping techniques involve aspects of physicality, internality, alterity and (typically) artificiality. These can all pose functional problems, leading to a badly integrated modifications of the body. Indeed, the objective of fluent bodily integration is a key benchmark in the R&D of advanced prosthetics. Hugh Herr, head of MIT's Biomechanotronics research group as well as double lower leg amputee following a rock climbing incident, has set his aim on *"a new age when [orthotic and prosthetic] appendages will no longer be separate life-less mechanisms, but will instead be intimate extensions of the human body, structurally, neurologically and dynamically."* (Herr et al. 2003: 133) On the aesthetic front, hair or breast implants can also be said to be categorically different from toupees and padded bras due to their internality and fixity. However, physical self-shaping practices that lead to a successful *functional* integration can still pose (severe) *ethical-existential* problems, for instance when these practices produce a state that is ethically worse (for example, a functionally optimal technique to suppress one's conscience) or existentially worrisome (for example, a functionally optimal technique to alter one's personality to such an extent that it severs the link of identity between the pre-op and post-op person).

2.4.3 Temporal Aspects

The temporal aspects of physical self-shaping practice can be made into a taxon of its own right. Other things held equal, the more permanent a PSS intervention is the more weighty it is likely to be found. Two kinds of permanence are at issue: permanence throughout an individual's lifetime (a tattoo, for instance) and hereditary permanence (such as germline genetic modification). Thirdly, there is the distinct element of permanence in the *selection* techniques such as those made possible by pre-implantation genetic diagnosis. Within the permanent, a further vital distinction needs to be made between those that are *absolutely* permanent – those interventions that can never be undone, such as laser eye surgery – and those that are more or less permanent *by default* – interventions that create a new default situation that will last indefinitely only when things are left as-is, but which still allow for undoing and opting out (such as many

kinds of tattoos, now that there are effective laser tattoo removal techniques). PSS practices can be situated theoretically at any point on the spectrum from the permanent to the momentaneous. An example of the latter are so-called 'poppers.'[13] Breast implants would be a mid-range example of the duration dimension, having an average lifespan of ten to fifteen years.[14]

Duration and the earlier mentioned element of *fixity* is but one way to make temporal distinctions between PSS practices. A very different one is that of *habituation time:* the time, projected and real, it takes for oneself and for others to get habituated to one's modified body and to adequately utilize and interact with one's new bodily features. Another temporal distinction is that of *start-up time:* the lapse of time between one's desire to enjoy the effect of the PSS intervention and one's effective enjoyment (for example, the difference between the periodic intake of birth control pills ('the pill') and the implantation of an intrauterine device ('a coil')).

2.4.4 Agential Aspects

An aspect that causes much consternation and confusion in the debates on physical self-shaping concerns the distributions of agency: who or what is acting on who? PSS practices can range from the highly autarkic to the deeply (socially) dependant and distributed. Perhaps the most autarkic bodily modifications would be those where some individual Robinson Crusoe experiments with the intake of some material that she finds abundantly available in her natural surroundings, for instance coca leafs, which induce a significant self-altering effect she autonomously endorses and which lead her to cultivate her own plot of selected and refined coca plants for personal use. Here, five key phases of the PSS practice can be located within the very same person whose body is being modified: (1) the *undergoing* of the bodily modification technique itself, (2) the *research & development* of the bodily modification materials and techniques (3), the *production & distribution* of the materials, (4), the *administration* of the materials according to the proper technique, and (5) the *valuation* of the whole procedure and the *decision* to go ahead with it. However autarkic, even Crusoe remains profoundly subjected to contingencies that are given and immutable to him, namely the happenstance of stumbling upon such natural surroundings, and the fact that the inner workings of

[13] Inhalable alkyl nitrite fumes which instantly and fleetingly produce an exhilarating effect (lasting only one to five minutes) used, among other things, as an aphrodisiac and apparently tried by no less than 9% of the population of England and Wales (Chalabi 2013).

[14] Saline or sterile salt water filled implants having a somewhat lesser lifespan than those with silicone gel filling (National Health Service 2014).

those natural surroundings remain unknown to and uncontrollable to him (Buchanan 2011).

2.4.4.1 Distributions of Agency Between a Person and Enabling Others

On all these five fronts, there can be substantial reductions in the amount of agency coming from the person whose body is being modified herself. At every turn, *someone else* may be at work. If we look at for instance aesthetic surgeries, athletic doping or the use of stimulating drug cocktails among knowledge workers, it is easy to find cases of people reverting to PSS because of social pressure (cf. supra, 1.2). In many cases, there would be a very different (group of) agent(s) at work in every phase. For an individual (1) who undergoes some such PSS practice, that practice is likely to have been (2) researched and developed by a scientific and techno-industrial complex that is profoundly foreign to that individual, (3) produced and distributed by a string of manufacturers and (commercial) middlemen, (4) administered by (possibly merely self-proclaimed) medical professionals, (5) valued as (im)permissible by (multiple) political and regulative bodies, endorsed or not by (multiple) cultural communities, and marketed as desirable or necessary by commercial actors, possibly leaving little to nothing to the genuinely autonomous and authentic deliberation of the individual whose body is being modified. That heteronomous situation may pertain even if she has gone through the formal motions of 'consenting' or 'assenting' to what is being done to her.

How much of the eventual modified body and its performances remain to be attributed to the person inhabiting that body, and how much of them should be attributed to those myriad contributions by myriad 'backstage actors'? The comparison is sometimes made with a Formula One racing car: although there may be only one person driving the car, its win or loss will be due not only to the driver but to the engineering team, maintenance team, coaches, financers, managers, co-drivers, and biochemists like Chris Cooper, who writes in the context of doping that

> there are some who argue that there should be no restrictions and we should let the best person (or the best person's biochemist) win. Personally, I don't see myself as the biochemical equivalent of a Formula 1 mechanic, fine-tuning an athlete's engine with an inhibitor here or a gene tweak there. But I think that's a story for another day... (Cooper 2012: 39)

This dissertation deals with the story Cooper steers clear from. In the age of on-going bodily modification, although one person may inhabit and 'pilot' a body, an elaborate 'team' may share in the accountability for that body's constitution, potential and performance. An individual body thus becomes the site of an elaborate 'social carve up.'

Assessing each actor's actual contribution is likely to be complicated by the claims each actor makes about her contribution and that of others. Certain implicated agents may want to overstate their role, squeezing as much purchase as possible from 'if it wasn't for me, you would never…'-type reasoning. Some 'backstage actors' may relish the power trip of imposing their will on the intimacy of another's body – for example, strip club owners, pimps or 'crowd-source benefactors' who donate cash for another's breast enlargement surgery.[15] To realize one's will *within* another person's body is a powerful thing indeed (as explored in Pedro Almodovar's 2011 film *La Piel Que Habito*), and it is a form of physical bondage that may be taken pleasure in from both sides. Indeed, some persons undergo bodily modification as a way to submerge themselves in deep submission to a charismatic, powerful other. This happens with certain clients of certain aesthetic surgeons.[16] The whole procedure of being remorselessly reduced by the surgeon to one's physical appearance, being found lacking in many respects, and finally being cut open and remade in the surgeon's vision, allows one to be deeply, carnally *made by* and *guided by* another – a form of submission to higher authority that holds out the great existential gratification of an *"escape from freedom"* (Fromm 2013[1941]). In 'being lived by' these technologies and by the persons who create, administer and advocate them, a person can feel discharged from the duty to live by one's own lights and for one's own sake. The messy business of life gets reduced to the single-minded sphere or physical appeal, in which clear standards of right and wrong can be believed to exist more or less objectively, with the surgeon as a witchdoctor-gatekeeper holding the power to transfigure you, making you good, whole, beautiful and beautified (dramatized in Paolo Sorrentino's 2013 film *La Grande Bellezza,* where the *mondanos* of today's Rome congregate in the temple-like office of an aesthetic surgeon to receive absolution via a botox shot).

Conversely, other backstage actors may have an interest in *understating,* masking or denying their influence. As is common in 'free market' exchanges, those making a profit from some kind of (morally dubious) PSS practice may want to, on the one hand, portray themselves as merely 'neutral providers' and 'innocent bystanders,' and on the other hand portray the PSS practice as a (sufficiently) unforced, uncoerced, unsollicited, untempted 'free choice by the individual.' Such disingenuous denial of one's 'complicity in suspect norms' (Little 1998; Elliot 1998, 2004) is a standard rhetorical technique in market reeling and dealing.

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[15] myfreeimplants.com, for example, tries to draw in financiers with the tagline "Invest In Breasts," and on getcosmetic.com women jostle for financial backing with a picture plus hooks such as "This teacher needs some new titties." Both sites accessed on June 30th 2015.

[16] Consider the unnerving scene with the buxom secretary in Louis Theroux' documentary on aesthetic surgeons (Theroux 2007).

As discussed in the introduction, a fuller exploration of such biopolitical issues falls outside the scope of this dissertation. Instead of exploring the relation between a person physically reshaping herself and other persons or institutions weighing in on that act of self-shaping, I will focus on the relation between a self-shaping person and the self-shaping techniques she employs. This poses agential issues of a different kind, to which I now turn.

2.4.4.2 Distributions of Agency Between a Person and Enabling Substrates

Besides the attributive splitting of agency between the modified person and the 'technicians' enabling and influencing her decision, a second attributive split is that between the agency of the modified person and the modifying 'technique.' In the performance of a doped person, how much of that performance can be justifiably attributed to the person, and how much to the dope? Is the dope doing (most of, all of?) the work *for* the person? To get a clear view on such questions, crucial distinctions must be drawn between *non-agential, agency-bypassing, agency-enabling, agency-altering* and *agency-generating* PSS practices.

1. *Non-agential PSS practices.* These PSS practices alter bodily features and capacities in domains that were non-agential to begin with. Some of the most obvious examples here can be found among aesthetic PSS practices. For example, once the initial procedure of getting hair or breast implants is over with, these implants do not require active agency to produce their effect (periodic maintenance notwithstanding). Unlike toupees or wonder bras that have to be put on, fretfully kept in place and put off again daily, the implants are simply present as a default fixture of one's body. As such, they are equally inert characteristics as one's default condition of (not) having hair or breasts.
2. *Agency-bypassing PSS practices.* These do the work that otherwise the agent herself would have to invest. Within the same realm of aesthetic PSS practices, surgeries such as liposuction or the insertion of muscle-mimicking silicone pouches provide an appearance that one did not have to 'earn' through dieting or exercising. Whereas losing weight or gaining muscle will often (but certainly not always[17]) be the product of acts and abstentions by the lean or muscled agent herself, these PSS practices bypass the need for such efforts, requiring only the effort of undergoing the PSS practice itself.

[17] Some people stay lean despite heavy eating or have a pronounced musculature despite little to no physical exertion. Such leanness or musculature can thus be a matter of constitutional luck, rooted in non-agential bodily happenstance.

3. *Agency-enabling PSS practices.* These provide an enabling substrate, giving a person the potential to realize some feature or feat. However, the realization of that newly obtained potential will still require effort by the person herself. Anabolic steroids, for instance, do not simply make muscle grow automatically. In part, their effect is contrary: they reduce the recuperation time between bouts of exercise, thereby enabling the steroid user to *exercise harder and more often*, and it is this additional exercise which will be the main factor in the additional muscle growth (Cooper 2012; cf. infra 3.4.1). To take a prosthetic example, the advanced foot prostheses developed by Hugh Herr and colleagues at MIT's biomechatronics lab (http://biomech.media.mit.edu/) do not make walking become automatic and effortless. Effort will be required both in the learning process where one is mastering their use, as well as in their routine use. Moreover, in a rough analogy with the so-called Cheetah foot-and-lower leg prostheses with which o.a. Oscar Pistorius could compete with the world's fastest sprinters during the 2012 London Olympics, these prostheses enable persons to perform certain physical feats which flesh-and-blood footed persons *cannot* do, or certainly not as readily. In the case of Herr's foot prostheses, which he himself dons on occasion, one such an enhancing effect is the ability to march for many miles on end, well beyond the point at which flesh-and-blood footed folk will have had to cease due to strain and exhaustion. Also, as the other lower-leg prostheses celebrity Aimee Mullins also proudly attests, she has the advantage of *modularity*, being able to, for example, adjust her length (Mullins 2009 and Herr 2014).
4. *Agency-altering PSS practices*. These do not lessen or increase a person's exercise of agency, but rather produce a qualitative change in the nature of the person's acts. For instance, there is a qualitative difference in running on Cheetah-prosthesis instead of on flesh-and-blood lower legs – they are coarsely identical as ways of bipedal locomotion, yet on a more fine-grained level there are qualitative differences between the two that might for instance justify a different assessment of a 'runner' and a 'blader' running the 200m dash at the same speed. Nevertheless, although there is an alteration here of the *kind of activity* in which one is engaged as an agent (cf. Santoni di Sio et al. 2015), there is no alteration of the fact that one is an active agent, be it a 'blader' on prostheses or a 'runner' on flesh-and-blood legs (cf. infra 3.4).
5. *Agency-generating PSS practices*. These make agency possible in a sphere where we used to be impotent. For instance, although hair or breast implants can be considered largely 'non-agential' once they are implanted, at the same time their possibility generated a new sphere of agency: they turn one's hair or bosom into something one can act on in precise ways (beyond their mere cutting and amputation). A field of erstwhile impotence, where one could do

> nothing to alter the hair line or breast shape one was dealt with, has now been made amenable to one's own agency.

In sum, the relation between PSS practices and agency is varied and complex. Clearly, the sweeping critique as if the use of PSS practices turns a person into an automaton will often not stand up to scrutiny. Indeed, as Michael Sandel has argued and I will examine in more detail in the following chapter, where some biotechnological techniques may (seem to) be *"eroding human agency"* by making us *"drift towards mechanism,"* others may leave agency unscathed, and others still may even lead into *"hyperagency,"* something Sandel warns for as a *"deeper danger"* (Sandel 2007: 26).

2.4.5 Intentional Directions

The enhancement enterprise is often approached as a predominantly *perfectionist* enterprise that pushes *"beyond therapy"* (President's Council on Bioethics 2003), something people embark on either because they want to feel *"better than well"* (Elliot 2004) or because they feel pressured by a *"performance principle"* (Hoberman 2012) to stay ahead of the competition. The kinds of pleasure- and performativity-oriented 'perfection' that is being pursued within the enhancement enterprise are often berated for being informed by impoverished and misguided conceptions of the good life. Appearances are everything, authenticity expendable. 'The bigger the better, the more the better' – quantitative accumulation trumps qualitative refinement. Standard tropes of this high-tech barbarism: the perfect designer drug to either leave you a *"contented cow"* (Kass 2002: 48) or a tireless racing rat, the ballooning steroid muscle or (if the reader will permit me the visual onomatopoeia) silicone 'boob.'

Such criticisms may have partial validity, but they often indulge in gross oversimplification. Leaving normative evaluation to the following chapters, I will here try to map out the diversity of aims people hope to further via PSS practices. As for instance Erik Parens also stresses in his work (Parens 2006, 2014), there is certainly much more that might be aimed at than either therapy or else the kind of (pseudo-)perfection evoked. As the following rough partition should show, framing the debate on self-shaping as a 'therapy/enhancement' distinction may be a case of 'dichotomania' (Ramachandran 2011). Instead, besides enhancement-oriented PSS practices I propose to distinguish between PSS practices that are (1) *normality- and conformity-oriented* (2) *deviance-oriented*, (3) *disability-oriented*, (4) *autonomy- and authenticity-oriented* and (5) *therapy-oriented.*

2.4.5.1 The Aims of Normality and Conformity

PSS practices can serve the pursuit of normality and societal conformity, but as the phrase 'perfectly normal' suggests, there can be some ambivalence between norms of perfection and norms of normality. Consider for instance the aims of 'perfectly straight teeth,' 'perfect mental balance,' etc. New-fangled PSS practices are also likely to make the norm of normality shift, creating a 'new normal' (Vincent 2014). For instance, due to technical advances and widespread use of orthodontics, certain less-white, less-symmetric dental scenes that used to be commonly perceived as normal become a sign of abnormal poverty, neglect or indifference. A 'new normal' can even be constructed *outside* the default phenotypical range of *Homo sapiens* biology, for instance in certain subcultures where visibly artificial breast implants become the norm, or for instance in the traditional Maori culture where 'tā moko' ornamentations are carved into the face, marking *inter alia* social status.

Curiously, some highly modern PSS practices can serve to pursue conformity to highly traditional cultural norms, such as the aforementioned prescription of pharmaceuticals to serve as sex drive suppressors and as a gay conversion technique within the orthodox Jewish Haredi communities (cf. supra 2.2). Another example is that of hymen reconstruction. In certain cultures, such as those impressed by Deuteronomy 22:13-21[18], the appearance and public display of female virginity is a central concern. Within some of those cultures, women are seeking out the modern PSS practice of hymen reconstruction. The reasons for doing so clearly have nothing to do with physical health: they revolve around cultural norms (*in casu,* of societal and male domination of women) which these women are pressured to conform to, and with which some surgeons choose to be complicit in order to avert even worse outcomes, such as

[18] "If any man takes a wife and goes in to her and then hates her and accuses her of misconduct and brings a bad name upon her, saying, 'I took this woman, and when I came near her, I did not find in her evidence of virginity,' then the father of the young woman and her mother shall take and bring out the evidence of her virginity to the elders of the city in the gate. And the father of the young woman shall say to the elders, 'I gave my daughter to this man to marry, and he hates her; and behold, he has accused her of misconduct, saying, "I did not find in your daughter evidence of virginity." And yet this is the evidence of my daughter's virginity.' And they shall spread the cloak before the elders of the city. Then the elders of that city shall take the man and whip him, and they shall fine him a hundred shekels of silver and give them to the father of the young woman, because he has brought a bad name upon a virgin of Israel. And she shall be his wife. He may not divorce her all his days. But if the thing is true, that evidence of virginity was not found in the young woman, then they shall bring out the young woman to the door of her father's house, and the men of her city shall stone her to death with stones, because she has done an outrageous thing in Israel by whoring in her father's house. So you shall purge the evil from your midst." (The Bible, Deuteronomy 22:13-21, English Standard Version)

honorific murder of those women who fail to bleed as expected during the nuptial night (Paterson-Brown 1998; Mehri and Sills 2010).

2.4.5.2 The Aim of Deviance

Some bodily modifications aim to realize conceptions of the good that are so idiosyncratic or outright weird that it would be a stretch to subsume them under the heading of 'enhancements.' Such 'alterity-oriented' bodily modifications can be broken down further in two distinct categories of *deviance*-oriented and *disability*-oriented ones. I will first turn to the explicitly *deviance*-oriented PSS practices. These can be undertaken simply out of a pursuit of novelty, originality, uniqueness, dissidence, or indeed: of *wilful imperfection*. People of a curious and/or creative bent have since long sought out psychedelics mild and strong, to try out all kinds of upheavals of emotion, perception and thought, looking to explore that particular 'space of possible modes of being.' One of the most salient motives for all the extreme tattooing and piercing, tongue splitting, teeth filing, earlobe stretching or unconventional implants that goes on in the so-called 'body modification movements,'[19] is to mark one's dissidence and deviance towards society at-large. This hearkens back to a spirit that was already noted in the Western tattoo cultures of the 1930s (D. 1932: 11)

Occasionally, the point may even be to generate manifest ugliness and repulsiveness, even according to the standards of the modified person herself. Such deviance may be pursued in a culture of acceptance taken to extremes, as a dramatic attempt to subvert reigning norms, to (try to) take some kind of rebel pride in daring to be ugly and deformed, as a mark of strong character or to erect a hurdle of daring and sacrifice for those who wish to enter a particular (sub)culture.

In a sense, the *tache de beauté* culture may be a time-worn (and moderate) example of this drive towards wilfully affected imperfection. Indeed, in contemporary western culture, appeals to accept imperfection and celebrate deviating difference have become so common, that ironically, in order to excel in *this* counter-culture-turned-establishment-culture, people may seek to one-up 'all too perfect,' 'all too unblemished' others by (artificially) generating some socially valued 'imperfections.' For instance, after the recent fashion riot about model Cara Delevigne audaciously leaving her bushy eyebrows untweezed, RevitaBrow has been tipped as a way for women to boldly *thicken* their eyebrows. In his *Anthem,* Leonard Cohen sings *"there is a crack in everything, that's*

[19] Curiously, a central strand within the body modification movement calls itself the 'modern primitive' movement. Their body modifications serve to signal a refusal of modernity in many ways, and celebrate a form of return to primitivism (Pitts 2003)

how the light gets in," a line to which well-meaning westerners swoon by the thousands. Cracks, they will be interested to note, can now be made-to-order.

2.4.5.3 The Aim of Disability

Turning to disability-oriented bodily modifications, these involve persons seeking out some kind of disability for themselves, their (future) children, or for others. The reasons to want to disable parts of other people's bodies and minds can be quite obvious: a date rapist may want to slip Rohypnol in a potential victim's drink, just as a thief may want to slip a narcoleptic in the date rapist's drink, just as a crime fighter may want to spray oxytocin fumes around the plotting rapist's and thief's heads in an attempt to mellow them out and avert impending crime. We can also factor in the R&D of chemical and related kinds of warfare, which also includes novel equivalents of alcohol served in the trenches. The US air force, for instance, already administers amphetamines to render one's own combatants more focused (and arguably les fearful and conscience-inhibited) during combat (Drummond 2013). There is much concern in the literature about 'memory blunting' and trauma-affect reducing drugs such as Propanolol (Levy 2007; Henry, Fishman and Yougner 2007; Parens 2010; Erler 2011), the use of which can slide from a therapeutic provision to combatants suffering from post-traumatic stress disorders to a 'disability-oriented enhancing' provision to combatants who might already factor in this eventual memory blunting prior to combat, allowing them to be less inhibited by fear of future psychological torment.

Clearly, there can be many reasons to seek out the diminishment of certain abilities or features of one's default nature (Earp et al. 2014). Even without social or institutional pressures, it is likely that individuals may wish to seek out all manner of memory-blunters, conscience-quellers, critical thought-inhibitors etc. on their own initiative. One need only consider the widespread practice of self-administered (over)doses of alcohol in order to either flee, post-factum, a confrontation with one's memories or conscience, or else to temporarily rid oneself from moral inhibitions beforehand, allowing one to indulge in acts for which one's scruples first need to be duly dampened. All kinds of PSS techniques may be sought out to reduce, for example, the stings of romantic heartbreak, mourning, remorse etc. (Savulescu and Sandberg 2008)

Certain parents may want to protect their children from being burdened by certain (amplitudes of) abilities that they judge to be 'more than is good for you.' Just as some parents seek to insulate their children against the perceived pernicious influence of philosophy, science or the arts, some may also want to use bodily modification or selection techniques to suppress, delete or deselect the potential emergence of all too much intelligence or inquisitiveness in their offspring, creating docile, pious children instead (Hughes 2004). In analogy with how employers and rulers have tried to keep workers and opposing populations sufficiently docile and lacklustre with a strategic

trickle-down of (again) alcohol, certain parents may be interested in chemical fixes to reign in too unruly kids. In fact, this already is a widespread worry about the all-too-liberal administration of Ritalin and other psychoactive drugs (Elliot 2004: 248).

A startling case of what Julian Savulescu has called *"designer disability"* (Savulescu 2002) is that of Duchesneau and McCullough, a deaf lesbian couple who deliberately sought out sperm from a deaf friend with congenital deafness running back five generations, with the express intent to ensure that their future child would be four-sensical and deaf instead of five-sensical and hearing. Those who argue for a universal moral duty to bring five-sensical persons into being if one has that (reasonably feasible) option, may have a hard bullet to bite however: for should the day come that a 'sixth sense' or some other enrichment of the endowment of future persons is made possible, would all parents all of the sudden be morally obliged to try to bring 'six-sensical' or otherwise enhanced persons into being from then on? After all, keeping to the five-sensical life in the face of a readily available six-sensical alternative can begin to look a lot like keeping to a four-sensical life when a five-sensical one is readily available. If the provision of a normal and healthy five-sensical *Homo sapiens* constitution can suffice, what is it about that *status quo* kind of embodiment that is so optimal, or at least good enough (Bostrom and Ord 2006)? Can it make sense to replicate our own biological status quo *ad infinitum,* even when a constitution of the normal *Homo sapiens* range becomes an increasingly less-enabling (disabling?) constitution compared to the available alternative modes of being (Agar 2010: Loc. 2529)*?*

2.4.5.4 The Aim of Self-Shaping Itself

Some physical self-shaping practices may be undertaken with the aim of enhancing one's capacity for self-shaping itself: to become more multifunctional, malleable, pluripotent, 'protean.' The aim here is *"morphological freedom"* (Carrico 2006) itself. If any specific performance is sought out, it is the performance of *plasticity.* In the field of vision, for instance, one can place a wide array of lenses and optical tools in front of one's eye and thereby obtain microscopic, macroscopic, infrared, X-ray, UV-blocking sight, night vision etc. If one were to *incorporate* these tools into one's body, one would become a visual Proteus of sorts, with the ability to reshape one's own mode of visual perception as one sees fit. However, fitting all those optical enhancements into one body would not only be needlessly complex, it would also be needlessly unwieldy. Instead, connecting to good old external tools – with their great advantage of *detachability* – will often provide much more protean bang for the buck. To use a simple example, sun*glasses* are far handier than sun*lenses*, because they can be put on and off much easier. In general, our protean nature as tool wielders is vastly more potent than our protean nature as bodily shape-shifters. However, whenever it's feasible, fixing enabling aids onto or into one's body can have the great advantages of ready

accessibility, secure presence and portability. A contemporary example of this are the new generation of hearing aids, which allow the user to toggle between different modes of hearing, optimized for table conversation, street noise or listening to concerts or films (Cochran 2005).

As Schaefer, Kahane and Savulescu have argued (2013), a distinct set of PSS techniques can target our psychological capacity for option generation and rational navigation of that field of options. These techniques would 'enhance autonomy' by bolstering one's abilities of consciously conjuring a larger sphere of alternative modes of being, deliberating rationally between them, deciding on advantageous courses of action and rationally acting on those decisions. Examples include the use of Ritalin in order to overcome (non-pathological) impulsivity or compulsivity (Singh 2005) or the use of chemical castration techniques by paraphiliac sex offenders, making possible better-reflected, self-endorsed action (cf. Chapter 4). As will be discussed in both chapters 3 and 4, these aids may allow one to live not only more autonomously, but also more authentically. In the procreative domain, examples can be found in all the possible forms of deliberate action or abstention by parents to ensure (or maximize) the capacity for autonomy in one's offspring. Making use of such physical child-shaping techniques may allow one to heed the widespread call to secure a child's *"right to an open future"* (Feinberg 1980). They may equally allow one to heed Jürgen Habermas' call to ensure that a child does not feel unduly 'prefabricated' by its parents (Habermas 2003). Ironically however, a child born from such a 'determinate choice to leave a child's constitution substantially indeterminate' may nevertheless feel like a designer baby of sorts. Tragically, there may simply be no way *not* to shape one's child once the option for child-shaping has become real (cf. supra 2.3, infra Chapter 5 and Bonte 2015c).

In sum, there are three distinct ways in which PSS practices can generate a protean field of options and enhance autonomy. Firstly, there are PSS practices that fix certain protean abilities unto or into the body. Secondly, there are PSS practices that enhance one's psychological ability to be aware of alternative modes of being and to deftly navigate these 'spaces of possible modes of being.' Such practices can provide one way to cope with the *"explosion of freedom"* (Schwartz 2005: 39; Sandel 2007). In the face of too many tempting options as to who to be and how to live, such practices might try to *match* the expanded 'space of possible modes of being' with an expanded ability to navigate that space. Thirdly, there is *the sheer availability* of alternative modes of being which poses a 'capability imperative' of sorts (cf. infra 5.2.3.1). That is to say, as soon as a technique to generate some alternative mode of being is developed and some technician opens up shop in one's vicinity (or in a clinic in a far-away country without legal bans on the technique, allowing for medical tourism), by force of logic, the sheer knowledge of the (potential) existence of such a self-shaping shop makes the body part in question alterable. From then on, one is making the (tacit) choice to either alter or preserve the body part, or to remain *in dubio* about it. Whichever way, one now relates to that body

part as something which is alterable, fungible, and one has irreparably lost the experience of it being an unreflected, immutable part of one's self.

In closing, a particular conceptual distinction must be pointed out here. PSS practices may not only *result* in greater autonomy, the very fact of choosing to modify one's body can *itself* be a dramatic actualization of a person's autonomy. To undertake a bodily modification can be a way to testify of one's ability to autonomously decide on what kind of body one will (or at least wants to) have. Indeed, 'autonomy-testimonial' motivations appear to be a major force among those who elect to pierce or tattoo their skin.[20] By puncturing one's own skin, one can mark one's own body as one's own. (Western) Youths, for instance, disaffected or marginalized individuals as well as others, may find this a bracing way to signal their (desire for) psychological independence or to reclaim their body. For instance, writer and English professor Roxane Gay comments on her tattoo: *"I hardly remember not hating my body. I got most of my seven arm tattoos when I was nineteen. I wanted to be able to look at my body and see something I didn't loathe, that was part of my body by my choosing entirely. Really, that's all I ever wanted."* (Gay in The New Yorker 2014) But tattooing to self-assert, reclaim one's body etc. goes well beyond the teenage world and coming-of-age antics. The Egyptian-American journalist Mona Eltahawy, who was beaten and sexually assaulted by the Egyptian riot police, says of the tattoo of Sekhmet, goddess of retribution and sex, which she chose to get afterwards: *"It became important both to celebrate my survival and make a mark on my body of my own choosing"* (Eltahawy in The New Yorker 2014; on tattoo and piercing culture in general, see Le Breton 2002).

2.4.5.5 The (Overshot) Aim of Health

The dividing lines between therapeutic, enhancing and other aims pursued through physical self-shaping can be blurred in many ways. So many ways, in fact, that it is best to conceptualize a series of twilight zones between them. Of course, just as the twilight of dusk does not do away with the difference between day and night, the twilight towards enhancement does not do away with paradigmatic cases of therapy. Additional confusion can be caused by 'medicalization' and 'demedicalization.' With demedicalization, I refer to the fact that one and the same PSS technique can be put to both therapeutic and non-therapeutic use. In pharmacology, this process is part of what is called 'off-label' use of drugs: the use for purposes not indicated on the drugs' label. I have already given the example above of 'memory blunters' such as Propanolol which can decrease the negative affect associated with certain memories (cf. supra 2.4.5.3).

[20] This drive for individuation is often in tension with a partly opposite drive for marking one's desire to belong to a (sub)cultural group (Le Breton 2002).

Other examples include doping agents such as anabolic-androgenic steroids, erythropoietin and human growth hormone, which were developed primarily as treatments for muscle wasting, anaemia and chronic renal failure, respectively. Medicalization refers to an opposite dynamic. Here, a practice is mistakenly or disingenuously given a medical explanation, when in fact there is nothing medical about it – or at least not unambiguously so. There are clear commercial reasons to medicalize the non-medical. There is good money to be made in convincing someone that she has a problem, that the problem is sufficiently serious to be called a disease, and that one just happens to have the medicine on sale to treat it. It is a winning marketing strategy (Elliott 2004). Moreover, not only does medicalization allow one to circumvent the eventual stigma on unabashed non-therapeutic bodily modification, it also allows one to research and develop the technique in question within the framework of medical research. Viagra is a case in point. To a substantial extent, it seems that it was the development of this pharmaceutical product that generated the notion of 'erectile dysfunction,' or at least the widened remit thereof to include age-related decreases in erectile function that used to be considered non-pathological.

There are many ways, however, in which developments that start off as unambiguously therapeutic spill over into non-therapeutic territory, regardless of any scheming on behalf of Big Pharma and consorts. In many ways, the very health-restorative, -preventative and -preservative objectives of conventional medicine may *in and of themselves* lead one into enhancement and other non-strictly-therapeutic territory. As such, the category of 'therapy' or 'the medical' (gradually) intersects with other domains. Consider the following transgressive slides starting from the traditional medical aims of health preservation, prevention and restoration.[21]

1. *Preservation pushing past itself*. When should the medical attempts to preserve good health stop, so that the slow or sudden descent into physical decay and death can proceed unimpeded? Transhumanists would argue that the attempt should never stop. Michael Hauskeller alerts to this expansive potential of the aim of health preservation, and how this might provide a medical mandate for potentially radical alteration of the human body: *"Given that the human body, as it is naturally constituted, it* itself *a danger to our continued well-being, any*

[21] The conceptual distinction between these three aims can be described as follows. Where preservation is concerned with keeping an actual state of affairs unaltered, prevention is concerned with keeping an adverse alteration at bay. Unlike preservation, prevention thus allows for altering an actual state of affairs, so long as it is not in the adverse way one is trying to prevent. Restoration is concerned with re-actualizing a state of affairs. Restoration can thus overlap with prevention. Moreover, it can become quite similar to preservation when the state one restores has not been absent for long, or when the adverse effects of its absence have not been felt.

improvement on the body's natural constitution is a remediation of a defect and thus therapeutic." (Hauskeller 2013: Loc. 2179-2183) On this line, if it becomes feasible to, for example, preserve erectile function into unprecedented old age, this procedure creates a conceptual overlap between a form of 'individual (or even species) transgressing enhancement' (cf. supra 1.3) and a form of health preservation. This overlap can cover a lot of ground, comprising *inter alia* the entire field of so-called 'anti-aging medicine,' which attempts to undo the processes that cause decay and death. Its ultimate aim, therefore, is the continuation, for as long as technically possible, of a person's youthful vigour. Its aim remains, literally, 'biopreservationist:' anti-aging medicine' simply seek to preserve, and thus *ipso facto* prolong, a state of youthful vigour – even if that might require all kinds of invasive transformations of one's body and engender drastic transformations of human life as we know it, such as six-plus generational families, parents looking no older than their children for several decades, marriages and careers that span a century and more, etc.

2. *Prevention pushing past itself.* John Harris has made the controversial argument that vaccination can already be considered to be a technique that has moved us beyond the twilight zone of traditional medicine into enhancement territory by the multimillions (Harris 2007: 14). Vaccination introduces antigenic substances in one's body, setting one's immune system in motion to reconfigure one's constitution in such a way that a default immunity to certain pathogens is generated. This adds a new, naturally non-occurring 'shield' to the body. Whether Harris' vaccination example fully fits the bill can be debated, but the general point remains that the realization of prevention can become so effective that it inadvertently begins to generate enhancement outcomes as well. Should, for instance, clothing become substitutable by some permanent protective technique altering one's skin itself (without compromising other skin functions such as transpiration), this would be both a 'traditional' preventative as well as a 'transgressive' enhancement measure.[22] Another thought-provoking example has recently been provided by celebrity actress and filmmaker Angelina Jolie. To worldwide media coverage, Jolie has demonstrated that for the significant cohort of women with an elevated risk for breast cancer, it may be prudent to preventively ablate their mammary glands and implant silicone pouches instead, even when their breasts are still perfectly healthy with no sign of cancer (Jolie 2013;

[22] It might also, say, saddle us with a purple sheen. To decide against a preventative/enhancing procedure on the basis of a side-effect such as discoloration would, however, be to let aesthetic considerations trump considerations of health.

2015). By doing so, Jolie's estimated likelihood for developing breast cancer plummeted from 87% to under 5%. This procedure will *also* reconfigure one's figure, of course. For persons who have some misgivings about their default breast shape, their post-op silhouette may be experienced as an enhanced one. As Jolie testifies, *"[t]here have been many advances in this procedure in the last few years, and the results can be beautiful. [...] I do not feel any less of a woman. I feel empowered that I made a strong choice that in no way diminishes my femininity."* (Jolie 2013) There is, however, a deeper 'philosophical sting' to Jolie's trailblazing precedent.[23] Arguably, her bold preventative ablation can be interpreted as an implicit acceptance of the idea that we should stand ready to replace any and all of our default body parts by more robust biotechnological counterparts, whenever a prudential, probabilistic cost-benefit analysis points to it. For instance, given that she also faced an elevated risk for ovarian cancer, two years later Jolie went on to remove her ovaries and fallopian tubes. In order to prevent uterine cancer and to maintain a hormonal balance, she now has a progesterone intrauterine device inserted in her uterus and a patch to keep her estrogene levels up. As the array of healthier replacement body parts expands, adhering to Jolie's logic may lead to an ever-increasing artificialization of the body. Unless some kind of threshold argument is added[24], this line of reasoning may lead into the acceptance of an open-ended artificialization and upgrading of one's body – a bullet gladly bitten by transhumanists and prosthesis developers (Herr 2014), but preferably dodged by many others (Agar 2014).

3. *Restoration pushing past itself.* The developmental options for prostheses will occasionally yield either a deviating kind of quasi-restoration (for example, a hook or a claw for a hand) or even an enhancing kind of restoration-with-benefits (for example, the advanced foot and lower leg prostheses mentioned earlier, including the Cheetah lower leg prostheses for running, cf. Herr et al. 2003, Magdalinski 2012). Another set of examples involves regenerative and transplant medicine. Occasionally, regenerative or transplant techniques may yield *rejuvenating* results, effectively reversing a part of the accident- or age-related wear and tear. A basic, actual example in the field of transplants is Tommy John surgery (cf. supra p. 37). More dramatic examples can be found

[23] After publication of Jolie's first essay, referrals to breast cancer clinics in the UK more than doubled, and elsewhere increases of over 250% were noted (Paquette 2015).

[24] Jolie for instance makes some references to the threshold aim of living to the old age found normal in contemporary affluent society, expressing the satisficing wish to *"live to see my children grow up and to meet my grandchildren."* (Jolie 2015)

in the field of cutting-edge prosthetics. Consider how Oscar Pistorius and others running on fiberglass lower legs increasingly manage to beat 'flesh and blood' athletes. This can bring on a worry about people who might one day want to amputate their otherwise healthy default leg to have a biotechnological alternative fitted unto them. Although today's lower leg prostheses still come with far too many disadvantages to tempt reasonable persons to amputate and switch to fiberglass, the aforementioned Angelina Jolie example does show that such 'replace-and-upgrade-while-you're-at-it' temptations will be real whenever the cost-benefit ratio is positive. [25]

2.5 Conclusion. Our Protean Predicament Anno 2015

Although the range of effective PSS techniques has widened considerably anno 2015, overall our techniques are still much too clunky, our surgeries much too clumsy, the costs and side-effect too prohibitive, to offer effective alternatives to our default mortal coils in most regards. Perhaps then, it is this persisting factual impotence, more so than a categorical normative attachment to human nature and one's individual birth suit, that keeps many people from living a protean life in which body parts are altered and replaced in their pursuit of the good. Perhaps it is mainly this practical, non-principled reason that makes many resign in the body they were dealt at birth, and that primes them to invest in an appreciative, affectionate relationship towards their given nature. In the spirit of making the most of one's predicament, people may even go so far as to believe there is some deep obligation (of religion or of character) to refuse all

[25] For even more radical examples of this conceptual possibility of restoration pushing past itself, we can again turn to the (fantastical?) prospects of 'anti-aging medicine.' The radical life-extension advocate Aubrey de Grey, for instance, envisions *"strategies for engineered negligible senescence"* (SENS) to block and reverse seven natural processes that are key in causing decay and death (these being cell loss or atrophy, oncogenic nuclear mutations and epimutations, cell senescence, mitochondrial mutations, intracellular junk or junk inside cells (lysosomal aggregates), extracellular junk or junk outside cells (extracellular aggregates), and finally random extracellular cross-linking). In one of de Grey's 'therapeutic' scenarios, a person could go in for a periodic metabolic cleansing, which would bring about a substantial rejuvenation of the person's organism. Post-op, the person would thus look substantially younger again. In such a scenario, the traditional human lifeline would be drastically upended. Instead of the traditional 'three-seasonal arc' of youth, adulthood and old age, after puberty there would be a potentially indefinite jo-jo oscillation of aging-and-rejuvination cycles (De Grey and Rae 2008).

opportunities at profound self-alteration and enhancement, and to instead *"treasure and defend [...] what nature uniquely gave us"* (Kass 2003: 28).

However, despite our deep persisting impotence to change our given selves, from another angle the current range of PSS techniques may already be so wide that certain psychological thresholds are being transgressed. Indeed, my main purpose with this historical-taxonomical chapter was philosophical: to stir up a form of existential self-awareness. My intent was to convey the vast 'spheres of possible modes of being' in which we find ourselves situated and in which each person must try to give some meaningful shape to her self (or hope to be given one by others). This work of self-affirmation and –determination can be psychologically troubling (Nagel, S. 2010) and present profound existential quandaries (Kahane 2011).

The possibilities for physically altering one's default nature come on top of the much greater variety of self-shaping possibilities that have little to do with one's body nor involve physical techniques. Modern life in liberal society is marked by a superabundance of personal choice (or, put more pessimistically, a superabandonment by others to prescribe what one should be and do): choice in living or dying, in friends, in lovers, in family life, in making new life yes or no, in schooling, in work, in place of residence, in community, in (sub-)culture, in politics, and of course, in one's life as a consumer of goods and services on the colossal world-wide on-line market place. As I will argue in the following chapter, people often search inward for a 'true nature' or 'given self' to find a sense of inner obligation with which to wade through their fields of choice and ward off a passion-sapping sense of absurdity (Nagel 1979: Chapter 2; 1986; 2010: Chapters 1 and 4). Many hope to clear up the confusion by 'just being themselves' and 'doing what they feel is really right for them.' Like Meryl Streep's character Susan Orlean in *Adaptation,* many seem to feel as if *"there are too many ideas and things and people, too many directions to go. The reason that it matters to care passionately about something is that it whittles the world down to a more manageable size."* In the absence of actual passion, Streep confides: *"I suppose I do have one unembarrassed passion. I want to know how it feels to care about something passionately."* (Streep in Kaufman, Kaufman and Jonze 2002).

One path to passionate, meaningful living may lie in taking cues from your birth suit, such as your (lack of) 'talents,' and developing these with adequate commitment, consistency and coherence. If all goes well, this would lead into a state of 'flourishing,' of 'potential realized' and of a life lived in fidelity to your innately given nature. A nature that, ideally, was meaningfully given to you to begin with. Such nature-based living is one popular way to deal with the triple challenge of modernity that I invoked at the very beginning of this dissertation and have corroborated in this chapter: (1) the widening, deepening and sharpening of the ability to alter one's default mode of being; (2) the chronic state of apprehension about many more alternative modes of being coming one's way; and (3) the culture of leaving individuals alone to their own initiative and discretion. Firstly, as our potential for PSS grows, the *factual* fixity of our given

nature shrinks. What once was fixed becomes fungible, compulsive becomes optional, spontaneous becomes reflected. To the extent that we lose our factual impotence to effectively intervene in our default mode of being, we must find some *normative* motive to either stay as we are or alter our default selves. Secondly, visions of technological progress promise the fungibility of much more about our selves, right down to our physical substrates: what remains recalcitrant today, may become fungible 'tomorrow,' 'some day,' or 'in theory.' This breeds a much more generalized sense of volatility. Thirdly, modern individuals may find themselves uncompelled by identities prescribed to them by moral communities, gods, 'pure reason' or moralized notions of nature. Alternatively, they may find themselves compelled by modern moral ideals of 'self-seeking,' 'self-expression' and 'self-determination' (Levy 2011; Parens 2014). This makes life not just substantially volatile, but voluntary to boot.

Chapter 3 The (Non-)Sense Of Living From One's Nature. The Case Of Talent and Doping[1]

Abstract

As the activity of sporting has become deeply ensnared in cultures of hyper-competition and industries of shallow spectacle, many are unable or unwilling to consider how in healed sports (sub-)cultures, doping might be done in dignity. To investigate this, I suspend all circumstantial issues surrounding doping, to see whether doping, in 'the best of all possible worlds,' would remain problematic. Analysing the required origins, processes and outcomes of a proper athletic accomplishment, I conclude that doping need not be debasing, mechanistic nor dehumanizing. The deep integration of artifice in one's body may even signify a courageous acceptance of the human condition – of being 'foundationlessly free' and 'relentlessly responsible.' As such, doping would be deeply dignified. In this light, I critique the deep attachment to natural talent in the justifications of anti-doping as attempts to sustain the comfortable but deceptive self-image of man as a creature which should follow the cues of its nature – develop its talents – to find purpose and meaning in life. Ironically, where 'talentocrats' feel obliged to given natural forms, 'transhumanists' can feel obliged to the given natural formula of evolution. They thus become strange bedfellows in trying to connect human existence to the comforts of a 'naturally given purpose.' To be human, however, is to be denied such an existential cradle. Intriguingly, sport is claimed both as a dreamland of soothing purposefulness and as a testimony to our troubling but true purposelessness. A truly virtuous spirit of sport should insist it is the latter.

[1] This chapter is largely based on Bonte 2012, amended with parts drawn from Bonte et al. 2012 ; Bonte, Sterckx and Pennings 2013 and Bonte 2015b.

3.1 Background

Should sport revolve around natural talent or should we rejoice in athletes enhancing their bodies with biotech? Two media storms of 2012 show how conflicting responses to this question can be. In fall 2012, the US Anti-Doping Agency presented a formidable doping dossier against seven-fold Tour de France winner Lance Armstrong. Before long, the International Cycling Union UCI had repealed all his seven victories, and the words of UCI president Pat McQuaid *"Lance Armstrong has no place in cycling"* became the instant headline of every major global news outlet. In the public eye, arguably the world's greatest athlete of his time took an unprecedented fall from grace to join the ranks of the 'doping sinners.' A few months earlier, in an incomparably different moral climate, Oscar Pistorius – the South-African double amputee running on so-called Cheetah prostheses – could be seen sprinting in the 400m relay finals of the London Summer Olympics. As he ran – or did he 'blade'? – as a man made of muscle and blood and fiberglass, and above all of will and skill, Pistorius rose to the ranks from where Armstrong was to fall: the hall of famers of heroic overcoming.[2]

In a sense, both athletes decided to draw biotechnologies inside their bodies, and to meddle with nature, in order to enhance their ability to perform. To many, however, the comparison stops right after it started, as each use of biotech signifies incomparably different things: the first causing mass desperation and gloom about the increasing intrusion of artifice in the human body, the second mass inspiration and hope about the coming marvels of biomedical technology. What might make Armstrong's endeavor so appalling and that of Pistorius so appealing? That is one of the conundrums this dissertation seeks to clarify.

As many commentators have noted, it seems that the contemporary doping debate is in urgent need of more in-depth investigations of such issues. Ultimately, the most vexing problems posed by enabling artifice nestling deep within the body do not seem to be about health or fair play, although doping clearly does pose momentous problems on those fronts too. But if some forms of doping would be made available in an adequately healthy and fair way, they would probably *still* cause much concern – concern about *doping itself* would persist, no matter how much its circumstances would be tidied up.

These intrinsic concerns require us to look at doping through a different set of lenses than that of health, fairness and rights. There's a whole range of very different, deep

[2] This was still *in tempore non suspecto,* before the media storm around Pistorius' homicide of his wife (Smith 2014).

issues at stake here. People care about authentic agency and personal accountability, about the appeal of natural grace in performance, about sports as a testing ground for the capacities of the human species with which all members of the species can identify, about sport as a display of the special natural gifts given to the talented, about sport as a display of ideal exemplars of man's nature; or alternatively, as a display of man's protean nature (his capacity to adapt and transform himself), or as a showcase of his promethean nature (his tendency to transgress naturally given constraints on his existence). All these foundational issues come to the fore when we start looking at doping through the lens of 'human nature.'

These foundational issues make up the so-called 'spirit of sport:' they constitute the more profound existential, ethical and aesthetic reasons why sports is perceived as a very meaningful practice to so many people. These foundational issues concerning human nature are not only of great philosophical relevance, they are equally of great practical relevance. Today, a categorical anti-doping position has been successfully established as the near-universal official consensus. Yet, as many authors have argued and as is stated explicitely in the World Anti-Doping Code, the legitimation of this categorical denunciation of doping relies heavily on the 'spirit of sport.' However, surprisingly few attempts have been made to provide sustained and focused articulations of what this foundational spirit consists of and how it could warrant a categorical denunciation of doping. To the extent that attempts have been made to back up a categorical anti-doping stance on the basis of concerns unrelated to health or fairness, none have been without controversy. At the same time, behind the official and popular consensus that doping is intrinsically wrong, a number of increasingly vocal scholars have been developing elaborate arguments for the permissibility and even the promotion of drastic athletic enhancement technologies, in direct opposition to the global anti-doping stance.

In recent years, anti-doping institutions have taken an impressive lift-off in terms of popular support, budget increase and regulative and policing powers. Nevertheless, their fundamental rationale is frequently perceived by both pro- and contra-doping authors as a 'black box.' That is, the 'spirit of sport' is commonly acknowledged to contain the foundational justification that fuels the anti-doping project, but it seems difficult to find out just how to open the box and articulate what that spirit is. Now that a significant number of contrary positions have been presented, the foundational anti-doping rationale must be restated if it wishes to trump those contestations. High time, therefore, for the anti-doping institutions to take a renewed interest in their *raison d'être*.

3.2 Questioning the Goodness of Talent and the Wrongness of Doping

3.2.1 A Structured Search for Doping's Intrinsic Wrongs

Many scholars have already concluded that the problem posed by performance enhancing interventions runs deep, and that this depth is not adequately probed by addressing the many acute circumstantial problems they pose, such as health risks, rule-breaking, unequal access, direct and indirect coercion, abuse in perfectionist and hypercompetitive cultures, etc. (President's Council on Bioethics 2003: 101–158; Sandel 2007: 25–44) I will not repeat such an exercise here. Instead of first expending the brunt of one's efforts on a conventional ethical analysis in terms of health, fairness, autonomy and rights only to *arrive at* conclusions that foundational, existential issues are at stake, I will 'cut to the chase' of the doping debate and *start from* that conclusion. This frees up the space to do more than *indicate* what the foundational issues are and allows me to *investigate* them thouroughly.

The World Anti-Doping Code recognizes that doping does not only pose such circumstantial issues which are ultimately remediable – at least theoretically so, even if they might prove to be intractable in practice. Doping is seen as wrong *in and of itself.* In this vein, the Code's Fundamental Rationale section stresses that *"doping is fundamentally contrary to the spirit of sport"* (World Anti-Doping Agency 2015: 14) and the World Anti-Doping Agency's baseline reads not 'play healthy' nor 'play fair' but, rightly so: "play *true*." *No matter what,* WADA says, doping will always be wrong.

A strictly pragmatic, circumstantial rendering of the doping imbroglio carries the risk that nothing *specific* about doping will be called into question. As such, it leaves one at liberty to conclude that there may be nothing wrong with doping in itself, and that doping might therefore have to be freely allowed as soon as its circumstances are tidied up. Such a 'thin' laissez-faire stance I hold to be frivolous and in disregard for a 'thick' spirit of sport where issues of character and merit are of the essence. Alarmingly, this thin view is even to be found among WADA experts themselves. Harm Kuipers, for instance, who previously served as a member of WADA's doping commission, argues: *"If a substance enhances performance and does not damage one's health, to me it can be used."* (Kuipers in Starckx 2008: 118, my translation from Dutch) As I will argue here, such a 'health-only' view is thoroughly misguided and ethically reckless. To remedy such apparent oblivion for intrinsic issues, in the debate on doping we need to start talking more, and more clearly, about *doping.* In philosophical parlance: we need to address, in a direct and sustained manner, doping's *categorical* and *intrinsic* traits, by which I mean

respectively the traits which are *common to all possible instances* of the category denoted by 'doping' and those that are *peculiar and distinguishing* to doping.

At the same time, however, I subscribe wholeheartedly to the important argument made by John Hoberman (2009) and Thomas Murray (2009a) that we should be very wary about dangerously naïve theorizing about performance enhancing interventions in the abstract. Such naiveté can indeed readily spring from at least these three distinct forms of 'theoretical blindness:' (1) a too short-sighted engineering perspective ("the intervention works in the lab, so why not introduce it in society?"), (2) a too short-sighted libertarian rights perspective ("it's my body, so why should some regulator get to decide what should and what shouldn't be in it?"), (3) a too short-sighted virtue perspective ("The truly good and wise can find a way to use this intervention with dignity, so who are we to pass judgment and deny anyone a try?"). Trying to add to received wisdom, I will argue here that in dealing with doping we should *also* be wary of the common bias of *circumstantial blindness:* the inability to see beyond the predicament one – or one's society – is in at a specific time and place. To come to grips with doping we must neither be starry-eyed nor blinded by the floodlights of the stadium as it stands anno 2015. Both the conceptual and the contextual analyses are indispensable, and we should paddle back and forth between the two to realize a strong reflective equilibrium. Seeking to add to that collective discursive effort, I temporarily turn away from the 'broad,' circumstantial side of doping and turn towards the 'deep,' intrinsic end.

A tried and tested philosophical tool to sift out circumstantial traits and allow intrinsic and categorical traits to surface, is to think through what 'doping' would *persistently consist of* if it were to exist in a (number of) 'best of all possible worlds.' All that persists in such worlds indicates *intrinsic* traits, and all wrongs that there persist indicate intrinsic wrongs. For instance, Aldous Huxley's Brave New World (2008 [1946]) served to show how a pure 'happiness enhancing technology,' the designer drug Soma, seems to be something intrinsically, deeply wrong even if it would be healthy, abundantly available and voluntarily engaged in. In fact, Soma provokes such profound indignation *precisely because* it demonstrates the issue of 'alienated happiness' in such an undiluted form. Robert Nozick (1974: 42–45) famously refined such arguments in his thought experiment of the 'Experience Machine,' arguing that if a machine would be able to induce the perfectly realistic *experience of* the most stimulating and satisfying life imaginable, this should be rejected. As I will argue, a choice for 'mental state welfare' based on self-deception is profoundly undignified, and, curiously, certain pro-talent, anti-doping philosophies seem to advise using one's given human nature as such an experience machine: to generate the (illusionary) experience that one was purposefully created, which promises substantial existential relaxation.

Huxley and Nozick show that with all preconditions of autonomy, health and fairness met, things can still take a turn for the worse, if not for the worst: persons being perfectly happy and healthy, while at the same time intolerably alienated, inauthentic

and dehumanized. In a similar exercise, throughout this chapter I will suspend my judgment on the countless circumstantial problems that surround doping-as-we-know-it-today and attempt a rigorous inquiry of doping's intrinsic, defining traits. The question is whether an athlete who dopes herself into a perfectly healthy and happy state of high performance thereby inadvertently degrades herself into a state of debasement, mechanistic passivity or dehumanization.

To set apart doping's intrinsic traits, I will start from the working definition of enhancement intervention given in the introduction. In a further specification thereof, doping can be defined as

> the introduction or application / of a physical entity or process / within or upon a person's bodily substrates / that produces an alteration in that person's properties or powers *relevant to athletic performance* / thus enabling that person to acquire additional properties or powers or to enhance existing ones beyond the powers and properties
>
> (a) that the (otherwise healthy and able-bodied) person possessed prior to the intervention (*bypassing doping*),
> (b) that the person might come to possess if she were to enjoy optimal MBS stimulation (*individual surpassing doping*),
> (c) of the biological species the person is (or was) a member of, i.e. *Homo sapiens* (*species surpassing doping*).

This definition filters out the following elements which are regularly presented as intrinsic traits of doping but which, as I would argue, are neither intrinsic traits nor necessary implications. Rather, they are *possible* (perhaps highly probable) contingencies connected to doping. A specific doping practice might entail several or even all of the following traits, but as I believe we can construe *realistic*[3] alternative doping practices in which all these entailments would *not* be the case, the following traits are neither categorically nor intrinsically tied into the concept of 'doping' itself:

[3] For a strict philosophical inquiry to be maximally revealing, thought experiments should be restricted by nothing more than logical possibility – a classic example of which, also relevant in the debates on human enhancement, would be Derek Parfit's Reasons and Persons (1984). If one demands realism, or even actual occurrence or feasibility in a foreseeable near future one risks 'ontological parochialism,' obscuring conceptual clarity. That said, the more realistic and contemporary we can construe a situation in which doping would not be intrinsically problematic, the more fruitful such findings will be for the eventual goal of the development of practicable policies, as it would allow us to identify, should they exist, (1) actual doping practices which are now receiving undue denunciation and persecution, and/or (2) feasible or foreseeable doping practices which are permissible and perhaps laudable to prepare and pursue.

1. Doping is unhealthy
2. Doping operates via *artificial* substances, devices or methods
3. Doping is unfair (as in being against the rules, as in there being insufficiently equalized access, or as in placing impermissible coercive pressures on those who do not wish to dope)
4. Doping involves an *intention* to enhance or a 'drive to mastery'
5. Doping is a sufficient cause for enhanced performance, i.e. effectuates *by itself* or 'automatically' the enhancement of performance, thus bringing about a 'drift towards mechanism'
6. Doping diminishes the need for engaged and effortful involvement by the athlete

The strongest contenders as (seemingly) intrinsic, categorical arguments against doping can be structured along the following three main lines, respectively based on the conviction that a proper athletic accomplishment should: (a) originate from proper origins, such as natural talent; (b) take place via proper, intentionally directed processes; and (c) result in proper, recognizably human outcomes (President's Council on Bioethics 2003 ; Sandel 2007 ; Murray 2009b ; Loland and Hoppeler 2012). On these three fronts, doping threatens to turn that proper athletic accomplishment into something *debased, mechanistic* and *dehumanizing,* respectively:

Performance	Natural	Doped/Enhanced
Proper Origins	From 'given,' natural origins Praised as 'gifts,' providing a sense of given place, purpose or predestination Proper, for sports should display who has been allotted greater/lesser talent	From self-styled, artificial origins Denounced as 'hyperagency,' eroding our sense of given place, purpose or predestination Improper, for it distorts the display of 'real,' natural superiority/inferiority
Proper Processes	Through one's inherent, endogenous bodily processes and one's active intentional effort Praised as authentic accomplishments	Through intrusive, exogenous means and by passively undergoing their influence Denounced as effortless & inauthentic
Proper Outcomes	'Vitruvian' Towards a perfected optimum within the normal, species-typical range Praised as perfected humanity	'Promethean' Towards a distorted excess over and beyond the normal, species-typical range Denounced as alienating dehumanization

Figure 5 Three components of a proper athletic accomplishment.

As the debate on doping is maturing and unreasoned intuitions are increasingly being taxed and asked to be replaced by sustained ethical argument, the ethical arguments against doping-itself revolve around concerns about the proper appreciation of one's natural endowment, about the proper cultivation of that endowment, and finally about the proper conservation of that endowment. Thomas Murray, chair of WADA's Ethical Issues Review Panel, has powerfully captured this talent-based spirit of sport which drives the global 'war on doping' and which often presents itself as *the* fundamental spirit of sport, allowing for no plurality on this fundamental level (cf. Brownsword 2012). According to Murray, Michael Sandel and the many who concur, the spirit of sport is about *the virtuous perfection of natural talent* (Murray 2009a, Sandel 2007, McNamee 2012, WADA 2015). Sharing the commitment to virtuous sports, I now take to task these additional requirements of perfectionism and natural talent.

3.2.2 Talentocracy: Fair Play or Rigging the Game for Talent?

From its inception, modern Olympic sport has been promoted as a meritocratic institution: *palmam qui meriut ferat*—may he who merits it win the prize—was the guiding motto of the trailblazing Olympian Games organized in England from 1850 onward by Dr. William Penny Brookes.[4] To realize this motto's aspiration, an environment of 'fair play' needs to be put in place— an environment purged from (blatantly) unearned privileges and advantages. Substantial efforts are expended to reduce the impact of *circumstantial luck* (Nagel 1979) on outcome. As such, the sports arena has often been heralded by the ideologues of the Olympic Movement as an artificially constructed ethical idyll in which one can escape from (and perhaps stage an attack on) the many undeserved privileges and their discriminatory protectionism in real world society. In fair, universal, and classless sport, the 'true, natural order' is allowed to prevail, whereas daily life is replete with false hierarchies of privilege and deprivation, protectionism, and discrimination that deeply obscure our view of who merits what he has, and who does not. Within the splendid isolation of the sports arena, organizers should ensure that all participants enjoy an *"equal opportunity to perform"* (Loland 2009: 163) insofar as it is logistically feasible (Dixon 2008). The closer we come to reaching this ideal of the *"fair opportunity principle"* (Loland 2009: 163), the more likely it becomes that the intrinsically most deserving person wins: irrelevant inequalities are

[4] Brooke sis one of the toften forgotten precursoirs of Pierre de Coubertin, the French Baron who went on to found the international Games we still know today and who is often – incorrectly – portrayed as the lone visionary who founded the modern Olympic Movement. For a history of the early modern Olympic movement(s), see Young 1996.

equalized, so that the relevant inequalities can make (most of) the difference. Across the spectrum of athletic disciplines, organizing institutions seek to implement this fair opportunity principle to some satisfactory degree by neutralizing the distortive effect of irrelevant luck factors. Possible ways of achieving this include intervening in significant disparities in the quality of equipment, position on the playing field, access to proper training facilities, etc.

However, with regard to one fundamental and highly decisive luck factor, the situation seems to be wholly reversed. Toward this particular luck factor, organizing institutions are determined to ensure that luck remains decisive in determining who comes out on top. That factor is natural talent, a form of *constitutional* luck (Nagel 1979). Indeed, today it is still widely advocated that sport ought to be—as former WADA president Richard Pound put it—*"a humanistic endeavor to see how far you can go on your own talent."* (Pound in Foddy and Savulescu 2007). With this talent-centered take on the spirit of sport, Pound implicitly echoes some elements of the bygone 'amateur' sports doctrine, which remained the official doctrine of the International Olympic Committee (IOC) until it was discarded after the 1988 Olympics (after having been conceptually plagued and *de facto* hollowed out for decades; see Guttman 2002). According to this amateur spirit of sport, applying too much effort is undignified: an ideal athletic performance should well up from more or less spontaneous talent, and training may only be engaged in leisurely—not too tenaciously, certainly not professionally. During the early Modern Olympics of the late nineteenth and early twentieth century, even being coached was seen as a disturbing degradation of the spirit of sport which demanded that an athlete should flourish on his own talent, not via the help of some external aid (Young 1996: 32). Similar to what is now often said of doping, such coaching aid would allow the athlete to circumvent his own lack of strategic cunning and motivational perseverance, and it would introduce a second entity (the coach) as a disruptive distinct origin to whom to attribute the performance.

In part, amateurism was a blunt weapon of class distinction, wielded to exclude the working class (which Brookes, in his original modern Games, explicitly sought to *include*) merely for the snobbish joy of exclusivity. However, in its more refined renditions, such as those given by the Muscular Christianity movement that inspired the Liverpool Olympic Festival of 1862, it is about cultivating the art of living of the well-rounded, chivalric, and pious gentlemen – a brittle, internal spirit to be carefully protected against lowly motives. To ensure that the athletes came to the Games for the love of the game and not for the love or need of money, the original amateur spirit of sport shunned all who would attend for material gain. Also, the motives of the participants were to be screened in some way to be sure they were based on honour rather than "bestiality," for as sport involves some measure of "ritualized aggression," "*athleticism can occasion the most noble passions or the most vile. [. . .] It can be chivalrous or corrupt, vile, bestial*" (modern Olympics founder Baron Pierre de Coubertin in Baker 1988:

330). Generalizing grotesquely, many Gentlemen Amateurs of the late nineteenth and early twentieth century sought to realize these aims by categorically excluding the entire working class from participation.

But besides snobbery and a high-minded honor code, the Gentleman Amateur spirit of sport was also rooted partly in tendencies to believe that socially constructed classes were in fact hierarchies ordained by God (aristocratic beliefs) and/or Nature (social Darwinist and related beliefs). Such beliefs helped to resolve what we now see as a glaring contradiction between the painstaking efforts to ensure fairness for the upperclass men on the sport field with the principled exclusion of the entire lower classes. The upperclass men regarded themselves already, as a matter of imagined metaphysical fact, to be superior to the lower classes, so it was perfectly reasonable to have the upperclass men only compete amongst themselves. This discrimination was legitimized by appealing not to a difference in skill or proper motivation (although such fictions were also widespread), but to an *essentialistic* difference: the working class was literally perceived as of another class, as *another kind of being*, so that even if the working class would perform better when measured objectively, their performance would nonetheless be tainted by its ignoble origin: the body and mind not of a Gentleman, but of a proletarian brute.

In time, the social struggle for equal opportunities managed to prove that the perceived inferiorities of the lower classes with regard to skill, motivation, and essence were little more than smokescreens erected to protect the privileges of the well-off. Today, the Olympic Movement proudly claims that it has largely succeeded in realizing its commitment to proper 'universalism:' there is now open access for all, regardless of class, creed, race, sex, or any other purported essentialist difference that would stand in the way of universal eligibility to participate. However, in this chapter I will investigate whether one such privilege-protecting obstacle to full universalism may still be in place: the requirement that one achieve athletic excellence only via the (more or less effortful) *"cultivation or display of natural talents"* (Sandel 2007, 28–29) that may (inadvertently) protect the privilege of those who have been referred to as the *"natural aristocracy"* (Jefferson 1988 [1813], 387–91) or *"lucky sperm club"* (Young 1994 [1958]), and that I propose to denote more precisely as the athletic 'talentocracy,' this being the societal class consisting of those who happen, through no merit of their own, to be born with a biological endowment advantageous to athleticism. I seek to answer the questions: is such talentocratic thinking at play in contemporary sports? If so, does this endanger the 'equal opportunity to perform'[5] of those who were perhaps less lucky in the natural

[5] I limit my discussion of the "equal opportunity to perform" to questions of equal eligibility and admission. Further questions of equal (re)distribution (of talent and of doping) will not be addressed here, as my

lottery but seek to obtain a similarly advantageous bodily endowment via biotechnology?

One may point out that the celebration of *effort* in our contemporary spirit of sport seems to show that we no longer value natural talent above all other origins of athletic ability. Indeed, in the wake of broader societal trends of increasing industriousness and social mobility, talent-driven amateurism has apparently been complemented by an ethic of effort-driven professionalism.[6] Elite sport today is no longer supposed to be a leisurely, genteel display of natural talent. Rather, the ethic of our contemporary 'pro's' is all about the superintensive, maximally efficient optimization of that talent. The cult of talent has been supplemented by a cult of effort, grit, and determination, a meritocratic work ethic wherein the prize and praise should go to those who put in the most intentional effort to realize the potential provided by natural talent. Indeed, it has been supplemented, not replaced, it seems, because even if Pound's spirit of sport invites you to *"see how far you can go,"* you still have to restrict yourself to *"your own talent"* as the proper material to draw on for your maximizing exercise.

The implicit model of human flourishing that Pound and like minds seem to draw on can be clarified with the following genetically modified organism analogy. It is one thing to make a seed flourish into a strong, tall, and many-flowered plant via nourishing environmental influencing: in doing so, we endeavor to see how far the seed can go based on the seed's own natural (genetic) predisposition—the seed's 'talent,' if you will. It is something else, perhaps something wrong, to let our nourishing environmental influence penetrate the ontological membrane of the seed itself, then we will slide from a *discovering* exploratory practice of seeing how far the seed can go on its own natural predispositions into a very different *creative* exploratory practice. We then not only discover what a seed is capable of, but instead begin to *remake* the seed. This is certainly somewhat confusing, and it may be very wrong. And if it is very wrong, it will probably

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arguments can be made without settling these questions. I would, however, briefly note that the general argument I present here remains compatible with views on just redistribution from one end of the spectrum to the other: uncompromising luck egalitarian views in which all "unfair (biological) advantages" must be undone (for instance by handicapping the talented or by enhancing the less talented) so that every member of a community of equals may come to enjoy "equal (biological) opportunity;" uncompromising libertarian views of "fortunocracy" in which individuals are left free to exploit for personal gain any good fortune that may come their way—financial capital, social capital, cultural capital, biocapital, and biotech-capital alike; and any position in between. For a luck egalitarian argument for handicapping the talented (for instance via point leads or head starts for the less talented) so that sports competitions can better track ethically relevant differentials such as character and effort, see Mehlman 2009b. See Murray 2009b for a critical response in the same volume.

[6] Money-driven professionalism—that is: sport as a true profession that supports one in one's livelihood—has also become dominant although merely as something permitted as a socioeconomical reality, whereas effort-driven professionalism has become dominant as an ethical aim.

be all the more so when sliding from discovering exploration into creative exploration with humans.

Perhaps this underlying discovery-creation distinction helps to explain why effort-driven professionalism appears to have supplemented talent-driven amateurism not as an equal, but as a *second best* ethos. Consider once again two flower seeds: one is tossed aside and left unattended in poor soil, the other is meticulously exposed to the most nourishing environments— earthed in the best soil, given the perfect amounts of light and water, perfectly managed on all fronts to see how far the seed can go. Flourishing time comes around and lo: *both* seeds grow into equally strong, tall, and manyflowered plants. Surely, the horticulturalist will be more impressed by the 'diamond in the rough' plant that managed to come to full bloom unaided and in unwelcoming terrain than by the plant that flourished equally only by investing continuous effort to optimize its growth. Analogously, when considering the arguments of Richard Pound, Michael Sandel, Thomas Murray, and many others, I perceive a historical and ethical tension between the professional and the amateur mindset being resolved by ultimately letting talent trump effort—a 'talentocratic' conclusion:

> [S]triving is not the point of sports; excellence is. And excellence consists at least partly in the display of natural talents and gifts that are no doing of the athlete who possesses them. [. . .] This is an uncomfortable fact for democratic societies. We want to believe that success, in sports and in life, is something we earn, not something we inherit. Natural gifts, and the admiration they inspire, embarrass the meritocratic faith; they cast doubt on the conviction that praise and rewards flow from effort alone. [. . .] No one believes that a mediocre basketball player who works and trains even harder than Michael Jordan deserves greater acclaim or a bigger contract. The real problem with genetically altered athletes is that they corrupt athletic competition as *a human activity that honors the cultivation and display of natural talents*. (Sandel 2007: 28–29, italics added)

For Sandel and many others, ultimately, talent still comes out on top when compared to effort, even when this creates enormous friction with the deeply entrenched meritocratic beliefs of modernity, as Sandel admits. Before I turn to the analysis of candidate justifications for such pro-talent, contra-doping valuations, I should clarify what is at stake for the Olympic spirit of sport. WADA, the IOC, and other anti-doping advocacy groups regularly assert that their categorical anti-doping norm and their spirit of sport have *universal* validity: anti-doping Olympism presents itself not as *one* spirit among many, but as the basic concept of proper sport that underlies all reasonable conceptions of proper sport (cf. Parry 2009, International Olympic Committee 2010, WADA 2015). If one adds to this the assumption that all sports cultures existing within the bounds of reasonable moral pluralism do indeed accept the categorical anti-doping norm and Olympism, then such a factual consensus might be used to justify claims to universal *regulative authority* of institutions such as WADA and

the IOC. In his discussion of Olympism, Parry for instance seems to hold that these connections (from universal aspiration to factual universal consensus to legitimate universal authority) can be made (Parry 2009: 8). However, this implies that if a reasonable conception of the good athletic life can be construed that is permissive or positive toward certain doping practices, the assumed universal consensus across reasonable moral pluralism would not (necessarily) hold, and categorically anti-doping Olympism would be reduced to one *particular spirit of sport* that, even while having universal ambitions and remaining overwhelmingly majoritarian, would not be able to exercise factual universal authority.[7] In such a scenario, it would be inappropriate to impose the categorical anti-doping norm on sports communities who live by reasonable views of the good athletic life in which doping is not categorically rejected.

3.3 Proper Origins. May the Best, or May the Blessed Man Win

3.3.1 Talent as Greater Potential & the Fleeting Critique of Doping

A good common sense reason to categorically prefer talent over effort refers back to the seed-plant analogy. Imagine a 400 meter sprint where two runners, A and B, cross the finish line at the same time, but A has had to invest all his effort and falls to the ground panting, whereas B runs unexhausted toward the cameras to mimic a lightning bolt that travels at the speed of light. The exhausted A may be greatly appreciated for having made an excellent time, and for having demonstrated the impressive character traits of extraordinary determination and willpower. But with regard to athletic skill *per se*, athlete B can be admired more because he has clearly not exhausted all of his running capacity: compared to A, B still has a reservoir of untapped potential, and thus demonstrates by his lack of fatigue that he has a potential for running skill superior to A's. They may have crossed the line at the same time on this occasion, but should B choose to *also* invest the extraordinary perseverance of A, his performance would exceed A's. In contrast, it is not an option for A to choose to also have a body like B's. Therefore, when someone with a greater talent – understood here as *a (natural) predisposition or aptitude for some remarkable capacity* – ties with someone with a lesser

[7] Adherents of anti-doping Olympism may of course still believe that others are (reasonably) mistaken, and that their Spirit of Sport truly reflects the only proper way to play sports and thus still try to convince others, noncoercively, of the wrongness of their ways.

talent, it is reasonable to infer that the more talented athlete has greater athletic potential than his competitor. A clearly already exhausted all he has and does not have the option of obtaining extra talent, whereas B does seem to have the option of obtaining extra determination and exercising greater effort.

However, when effective doping is possible, this partly sweeps the rug from under this commonsensical argument. Without doping as an option, A cannot gain an added predisposition as a matter of *fact:* there is literally no way to do so. If doping were to become an option, however, that factual barrier is lifted and what may keep A from gaining a similar aptitude becomes a matter of *value:* he now does have a way to do so, but perhaps a moral code forbids it. Therefore, as a preliminary conclusion, the argument about natural talent as the best indicator for greater potential loses its general validity, because effective doping may just as well provide such great potential. What is more, theoretically it could even do so to a greater extent than the most attuned natural predisposition ever could.

One could try to counter this by pointing out that doping practices as we know them today only enable a *temporary* boost of performance levels, whereas the presence of natural talent indicates a more durable, longer lasting potential for high-level performance – a *predisposition* proper:

> Genetic factors are the predispositions for developing the relevant phenotypes for good performances in a sport[.] A person with good predisposition is usually characterized as a 'talent.' Talent in this sense is distributed in the so-called 'natural lottery' and based on inheritance. (Loland and Hoppeler 2012: 3)

This durability argument may have some validity if one restricts one's view to the effectiveness of contemporary doping technologies, but it would be an exaggerated simplification to say that, come what may, *only* natural talent can ever count as a truly reliable marker for long-lasting potential. We must not let the image of today's pills, syringes and injection needles, and the often fleeting effects they bring about, obscure the fact that a plethora of current and future doping practices will not follow the lines of this 'Popeye caricature'[8]: doping taken up right before the performance is to be performed, bringing the body in a temporary high, resulting in an extraordinary strong performance, after which the enhancing effect fades away and it becomes evident that the athlete without the spinach/doping is, 'in reality,' a less able athlete who could never have performed her feat 'on her own.'

[8] Curiously, Popeye is designed and accepted as a very loveable character, even if his relation to spinach is eerily similar to taking periodic shots of (healthy) doping (Bonte 2015d).

What this Popeye caricature misses, is that long-lasting potential may also be obtained via certain forms of doping, for instance a doping agent that would secrete chemicals over a long space of time (contrast Popeye to Spiderman, Asterix to Obelix), or a permanent enhancing intervention such as today's Lasik eye surgery that golfers undergo to provide them with better than 20/20 vision. We might one day develop a genetic intervention to bring down lactic acid production, which would endow cyclists with an enduring capacity to fatigue more slowly and recuperate more quickly (Mehlman 2009a: 62). Ergo, *deeply integrated* doping practices such as the very real Lasik eye lasering or the still theoretical lactic acid intervention seem immune to this 'fleeting critique' of doping. What is more, even if – counterfactually – not a single type of doping would ever be able to provide a potential for physical performance as profound or durable as natural talent, this alone does not suffice to categorically depreciate the acquisition of skills via doping – it would only mean that natural talent could be appreciated somewhat more as it would mark a somewhat more robust potential. In sum, it is an erroneous overgeneralization to hold that doping could only ever induce fleeting performances and that natural talent is and always will be *the* best proxy for deeply ingrained and durable predispositions. There is, of course, the *hereditary* depth to talent, something which most forms of doping cannot claim, save for germline genetic manipulation or selection techniques. I will come back to that aspect of hereditary superiority at the closing of this section on proper origins.

3.3.2 Talent as the True Self & the Phoney Critique of Doping[9]

Precisely by resolving the *fleeting* objection, the deep integration of doping can raise a new set of objections on an altogether different and perhaps more fundamental plane. On this plane, succeeding *only all too well* in endowing the athlete with a predisposition to perform in a manner equivalent or even superior to natural talent becomes the problem. The deeper cause for concern is this: by implanting such novel (perhaps more enabling and superficially satisfying) predispositions, one may betray the (perhaps more incapacitating and superficially frustrating) predispositions that are properly one's own, that make up the essence of who one is. The more permanently and profoundly one modifies one's own inherent capabilities – and doping can do exactly

[9] This set of arguments is closely connected to the 'Proper Processes' concerns which require adequately *active* agency by the athlete as an person, so that the athletic performance can be ascribed to that athlete as a proper *accomplishment* of her. However, here I suspend that further discussion on active agency and delve deeper into the origins-issue of what falls within and without the self, and how one may integrate novel modes of being into one's authentic self-conception, a question preceding the active/passive distinction.

that – the more one 'tries to be somebody else,' the more one turns into a 'phoney.' Doping, therefore, might deeply undermine personal authenticity.

In light of this deeper danger, critics like Carl Elliot and Howard Baillie call for an ethic of authenticity, more precisely an ethic of *affirmative* authenticity (Elliot 2004; Baillie 2005). In such an ethic, self-exploration is conceived of as (primarily) self-discovery: drawing out what is already inside of you, as opposed to drawing in alien things from the outside. This general authenticity argument can be invoked with extra vigour in the field of sport and doping. Articulating the more fundamental reasons of why sport may be of great ethical value, several philosophers have characterized sport as a 'spiritual exercise' of self-discovery. While sport may often seem to be all about *Citius, Altius, Fortius* – that is: about transgressing given physical boundaries and striving towards *"superhuman performance"* (Savulescu, Foddy and Clayton 2004: 666) – this apparently *transgressive* practice can also be understood as an on-going *approximative* discovery of the eventual, ultimate boundaries of one's given potential – a practice akin to optimally nurturing a seed but refraining from remaking the seed. Sport can thus be engaged in as the intensive gauging of the inner depths and outer contours of one's 'true self.' The reward of intensive sporting then lies not only in the pride one can take in excellent performance, but also the valuable existential self-understanding one gains by it. This existential dimension is expressed in such widespread sporting slogans as "show what you are made of," "find out what you have in you," "stretch yourself to the limit."

Any sport hobbyist might thus engage in his private athletic soul-search, as for instance the environmentalist Bill McKibben describes the deeper meaning of his personal jogging routine in his anti-enhancement book *Enough* (2003: 1-66) or as Thomas Murray describes his cycling runs (Murray 2009b). Moreover, in the top performances of the global elite athletes this dynamic is played out on a species-level (Agar 2010, Magdalinski 2012, Meacham 2012). At the Olympics, those elite athletes reveal what 'mankind' has in itself – what mankind truly is. Between the gifted, perfected athletes and the less-gifted, less-perfected members of the audience, a deep form of bonding can take place provided that two premises (are believed to) hold: (1) the top athlete and the audience member share a species constitution, and (2) talents are distributed within the species in a random way, via 'the natural lottery.' As such, an audience member (as the Everyman) and the audience as a whole (as the People) can witness a top athlete accomplish superior feats and deeply identify with those accomplishments, thinking 'yes, look at what my/our mankind is capable of,' and, 'yes, had fortune dealt its cards

differently it might just as well have been me/anyone of us starring the show.'[10] For such revelations and identifications to take place, it is imperative that no-one is meddling with the communal constitution of human nature, nor with the dynamic of arbitrary allotment of talents via the natural lottery.[11]

Indeed, from this perspective of self-discovery and group identification, doping presents itself as a diametrically opposed practice of self-*alteration* and group-*dissociation*. I will reserve a further discussion of group-dissociation for the section on proper outcomes and will now focus on the problem of individual self-alteration. Instead of showing us what someone is made of, doping makes that someone anew. By redrawing one's given physical boundaries instead of approximating them, doping blurs precisely what the ethic of affirmative authenticity wanted to bring into sharp focus. Such arguments help to explain why doping can be considered as a form of cheating not in the superficial sense of breaking a conventional agreement that no one is to use stimulants (just as no football player is allowed to carry the ball over the field in his hands), but cheating in a more profound sense as *cheating oneself* in becoming a fake, a phoney, a fraud – denying and corrupting who one 'really is' or 'was cut out to be.'

However, the disorienting effects of human enhancement interventions must not be exaggerated and must also be properly compared to the way in which our natural, unenhanced body may be disorienting and alienating to us, too. Firstly, as for instance David DeGrazia makes philosophically plausible (DeGrazia 2005) and Peter Kramer backs up empirically (Kramer 1993), it is quite possible that identity-altering enhancements, even radical ones that directly intervene in one's mental life, may be *solicited* by certain persons, *welcomed* at the moment of the intervention, *positively assessed* afterwards and *seamlessly appropriated* as a core feature of the person's 'narrative identity.' Such interventions may even serve to *conserve* a given identity. For instance, we can readily imagine a subset of doping practices engaged in to preserve one's youthful skill levels into older age, thus making the self more rather than less stable, at least in one regard.

[10] This dynamic of identification based on recognition + random elevation is, I believe, a major reason of the immense popularity of hero stories such as Spiderman, Popeye, Asterix & Obelix etc. The basic narrative is that of an Everyman, with which the reader of the story can readily identify, who has the luck of experiencing an extraordinary intervention (being bitten by a mutated spider, eating super-spinach, drinking a druid brew or being drenched in it as a child), after which he comes to obtain special, superior capacities and his life is elevated to that of a superhero. Should the same fortune ever befall the reader (and it is only random that it has not), she may start leading the life of a superhero, too. Similarly, should the natural lottery have given the audience member the genetic hand now dealt to the top athlete (and it is only random that things turned out otherwise), the now audience member who goes unnoticed would have been the glorified star in the arena. Oddly, we seem to adore 'doping sinners' in these cartoon stories.

[11] For an insightful critique of common mistakes in thinking through the 'natural lottery,' applying among other things the non-identity problem to these issues, see Hurley (2002).

Secondly, it can be called into question whether a pharmacologically or prosthetically enhanced body must in all cases be more disorienting than one's default, nature-given bodily endowment. Applying this to doping, when it is engaged in mindfully and autonomously, in order to realize an athletic life project that is of fundamental value to a person, it may well be that in her doped state, she will experience a *heightened* sense of authenticity (we could label this 'aspirational authenticity,' distinguishable from 'affirmative authenticity') and that she will appropriate and affirm her newly enabled body as properly and proudly *hers,* where she may have felt out-of-place and ill-at-ease in her default, nature-given body which lacked the sufficient capacity to adequately realize her fundamental life project. Thirdly, drawing on a more philosophical and undoubtedly less common motivation, enhancement could also be engaged in as an explicit gesture to affirm the burdensome reality that we are 'self-shaping animals' whether we like it or not, thus displaying the virtues of moral courage and epistemic dignity (cf. infra). In the same vein, enhancement could be engaged in as an act of 'civil disobedience' against the evolutionary forces that shaped our *Homo sapiens* nature. Insofar as sports are a form of moral and existential theatre (Pound 2004; Baker 1988), the use of doping could be a dramatic, public exemplification of this affirmation of our self-shaping dignity, and a public repudiation of the supposed duty to be natural (Bonte 2011, Levy 2011).

Based on these three arguments, there seems to be no good reason why people should categorically be denounced for critically reviewing their own natural predicament and deciding that their biological inheritance could use some 'civil engineering.' However, the 'true self' objections raised here do contain considerable value if we properly tone them down into non-essentialistic, scientifically warranted arguments that we should pay close attention to the possible psychological effect of *"spiraling self-doubt"* (McKibben 2003: 55) if one uses doping or other human enhancement interventions too abruptly, too erratically or in any other way damaging to a valued sense of personal coherence and continuity (Kramer 1993; DeGrazia 2005). We must not let the mere possibility of all sorts of enhancement muddle the pivotal practical wisdom that it may still be best, all things considered, to appreciate and be content with the capacities one already has (Buchanan 2011: 69-114). As such, however, the 'true self' objection turns out to be not a categorical one about intrinsic, inextinguishable features of doping, but a precautionary one about *extrinsic eventualities* of *some* doping practices, that again, need not be overgeneralized.

3.3.3 Talent as True Purpose & the Fateless Critique of Doping

Continuing the argumentative cascade, precisely by resolving the *phoney* objection, once again a new set of objections can be raised on an even more fundamental plane – more fundamental still than that of personal authenticity.

That even deeper cause for concern is this: precisely by heeding the moral call of his aspirational authenticity only all too well, the 'self-made man' may come to neglect the respect he owes not to his self, but to the forces that made him. Changing the fundamentals of how one was created, as doping arguably does, overrides the biological blueprint one was born with. This overriding can be seen as a moral transgression: one should stay true to something more, something deeper, than one's 'ego.' Underneath one's ego lies a 'given' nature, a fate of sorts. Instead of living only in accordance with one's own will, one ought to acknowledge and attune oneself to this deeper, self-transcending origin. This acknowledgement may be of vital importance, because in one's given nature one might pick up signals of a deeper point or purpose to one's existence. As Rick Warren, pastor and author of the best-selling *The Purpose-Driven Life,* contends: *"[Y]ou're wired to do certain things. You're shaped. [...] If you want to know what you should be doing with your life, you need to look at your shape."* (Warren 2006) Perhaps this is where the intuition comes from that the 'gifted athlete,' like the 'natural beauty' or the 'natural genius,' deserves special reverence: she got her special gift from nature, whereas the doper helped herself to a gift – as an usurper, as an ingrate, or as someone with an excessive *"drive to mastery"* (Sandel 2007: 27).

The most clear-cut way to justify such an *amor fati* pro-talent/anti-doping stance starts from a divine command spirit of sport, more specifically a creationist one. In this spirit of sport, one's body is an intentional creation by some Creator, and one's talent is her command.[12] Consider how in the iconic sports films *Chariots of Fire* the Muscular Christian Eric Liddell piously testifies*:*

> I believe that God made me for a purpose. He [...] made me fast. And when I run, I feel his pleasure. To give it up would be to hold him in contempt. [...] It's not just fun. To win, is to honour him. (Hudson 1981)

Arguably, one mustn't squander a gift that was wisely given from the highest authority, nor should one be discontent with it. Ideally, one accepts it in gratitude and tries to make the best of it without asking for a greater gift. In a creationist spirit of sport, athletes blessed with talent bond with their Creator by cultivating and displaying

[12] Or, less authoritarianly, her invitation, her suggestion, her hope, etc. In general: her *will* in one sense or another.

those special bodily gifts they received. By the same token, all those who were *not* blessed with above-average abilities are to accept their normality or mediocrity. 'May the blessed man win' – that would be the spirit. In effect, this is a recurring refrain within the theology of sports (Weir 2011). In his *Address to Roman Athletes* of May 20 1945, pope Pius XII declared that *"[t]he human body is the crowning achievement of the divine Creation"* (Pius XII cited in Hoberman 2012). In 1955 he went on to explicitely denounce doping, pontificating that it is a fundamental wrong to claim *"the right to dispose unconditionally of his body [...] in order to obtain results that are beyond his own natural forces."* More recently, in 2009 pope John Paul II turned again to sports, declaring that catholics must turn their backs on a sports culture in which the presence of doping *"disfigures its nature."* (John Paul II cited in Hoberman 2012).

The creationist spirit of sport has the advantage of practical clarity, but of course, it comes at the cost of a having to buy into the philosophical extravagance of creationist beliefs. Is there a way to justify an *amor fati* love of talent and disdain for doping without having to rely on (crypto-)creationist beliefs? Contrary to his religious forebears such as Pierre de Coubertin and Avery Brundage, previous IOC president Jacques Rogge asserts that in the contemporary Olympics, *"the religious aspect has now totally disappeared"* (Rogge in Braeckman et al. 2011: 83 – my translation from Dutch). At the same time, its purported disappearance has not compromised the intrinsic pro-talent, anti-doping tenet of the Olympics. In the cult around athletes such as Usain Bolt, the Olympics still glorify *"the grace and effortlessness with which they display their natural gifts"* (Sandel 2007: 27). This invites the question which, if any, justification is now doing the work of justifying this persisting 'gift'-based pro-talent/anti-doping stance.

To fill this justificatory gap, Michael Sandel has set out to argue for the fundamental value of living by one's 'given' nature without drawing on (overtly) religious argument. In the chapter "Bionic Athletes" of his book *The Case Against Perfection*, Sandel writes:

> The deeper danger is that [human enhancement interventions] represent a kind of hyperagency, a Promethean aspiration to remake nature, including human nature, to serve our purposes and satisfy our desires. [...] To acknowledge the giftedness of life is to recognize that our talents and powers are not wholly our own doing, nor even fully ours, despite the efforts we expend to develop and to exercise them. [...] It is, in part, a religious sensibility. But its resonance reaches beyond religion. (Sandel 2007: 26-27).

Ultimately, however, I fail to discern in Sandel's writing an actual principled argument to ground the claim that our (lack of) talents should be kept as-is on account of their giftedness. I do, however, find a number of prudential arguments on discomforts that are best avoided:

> [T]he real problem is the explosion, not the erosion, of responsibility. As humility gives way, responsibility expands to daunting proportions. We attribute less to

> chance and more to choice. [...] One of the blessings of seeing ourselves as creatures of nature, God, or fortune is that we are not wholly responsible for the way we are. (idem: 87)
>
> There is something appealing, even intoxicating, about a vision of human freedom unfettered by the given. [...] But that vision of freedom is flawed. It threatens [...] to leave us with nothing to affirm or behold outside our own will. (idem: 99–100, the book's closing paragraph)

I wholeheartedly agree with Sandel that the growing number of practical possibilities to make decisions about how we are constituted burdens us with new levels of responsibility, of indeed daunting proportions (for an overview of the empirical psychological corroborations of this point, see Schwarz 2004). And I also agree that a vision of human freedom unaided by a nature or god to provide a given foundation leaves us with little more to affirm or behold outside our own will when it comes to settling what we should be doing with our lives. To be so 'foundationlessly free and relentlessly responsible' can indeed be a despairingly unmoored predicament to find ourselves in. As Allen Buchanan and colleagues note: *"If we can no longer convince ourselves that human nature provides significant constraints on the pursuit of individual or social good, we may feel cast adrift in a sea of possibilities."* (Buchanan et al. 2000: 93) If we could legitimately escape such a predicament, that would indeed be a blessing.

Sandel clearly believes we can escape such a predicament: we should start *"seeing ourselves as creatures of nature, God, or fortune"* – that way *"we are not wholly responsible for the way we are."* Yet no argument is provided how we might legitimately see ourselves that way. Allusions are made, however, to the *"blessing"* of the psychological comfort gained by believing oneself to be a creature of some originary creative force. In one convenient move, Sandel circumvents both those daunting degrees of responsibility as well as the aporic challenge of creating meaning for yourself from the vantage point of a godforsaken, nature-forsaken freedom (Kahane 2011).

With proper argument wanting and only a 'vision' of the lure of a life with lessened responsibility and a pre-existing meaning and purpose to it, I can only return to sender Sandel's argument: there is something appealing, even intoxicating, about a vision of a given human nature unfettered by freedom and personal responsibility. But that vision of giftedness is flawed, as it threatens to leave us with nothing to affirm or behold outside pointless, pitiless nature and, ironically, our own wishful thinking.

With Sandel I denounce the excessive *"drive towards mastery"* that seems to motivate some – perhaps many – advocates of human enhancement. But the ethics of virtue and authenticity equally compel me to denounce the excesses of a drive towards the comforts of an *amor fati* which seems to motivate some – perhaps many – to outsource responsibilities that are *de facto* theirs to entities such as a normatively charged conception of "*nature, God, or fortune*" – the existence of which remains to be argued for,

whereas the arguments for their mere desirability are ready to come by. As such, it seems plausible to understand such lines of reasoning as a choice for (false) comfort and certainty over the dignity and virtue of daring to accept – perhaps dauntingly uncomfortable – facts of our existential predicament. In this sense I believe the widespread experience of *"moral vertigo"* (Sandel 2007: 9), outrage and indignation in the face of deep possibilities of self-creation may in part be the result of the fact that such *"unwelcome liberations"* (Bonte 2008) are making it increasingly difficult to deny or brush aside the volatile-voluntaristic self-understanding I presented in the introductory chapter, a self-understanding that renders acute our 'foundationless (normative) freedom' and renders actual our potential for 'relentless responsibility,' apace with the enlargement of the sphere of potential human agency.

In the particular practice of sport, this disenchantement argument has additional bite, given that one of the fundamental reasons why people sport is exactly to *re-enchant* their lives. Doping makes this volatile-voluntaristic self-conception of finding ourselves condemned to be 'foundationlessly free and relentlessly responsible' strike right at the heart of sport, that cultural institution which is deeply predicated on both investing deep meaning in our nature-given embodiments as well as on fetishizing passionate and self-assured human action driven by prefixed rules to live by, crystal-clear goals to strive towards, and gratifyingly instant and absolute judgments on behaviour that is right or wrong, excellent or failing. Sport thus fetishizes, albeit ironically in a wholly artificial environment constituted by man himself, the Nature-given, Purpose-driven life. Precisely in this dreamland of teleology and given purpose, doping is providing proof of concept that a telos might be constructed at will.

It is emotionally understandable that a person regularly seeks relief from the feelings of rootlessness and boundlessness that come with such a disillusioning self-understanding, and chooses instead to push such thoughts to the periphery of one's awareness or tries to convince herself of alternative self-understandings that better satisfy her desires for being confident about what to do and for escaping excessively burdensome responsibilities. A pervasive way in which this happens is by self-deceptive storytelling about how blessed it would be if we would be meaningfully created beings, with a self-evident natural mould to fall back on and be carried away by. Such 'flights of fancy' can turn towards the divine and one's spirituality or towards the natural and one's animality, but either way they are similarly motivated. Consider how Nobel-prize winning poet Wislawa Szymborska strikes this chord in her evocative poem "In Praise of Self-Depreciation" (Krynski and Maguire 1981):

> The buzzard has nothing to fault himself with.
> Scruples are alien to the black panther.
> Piranhas do not doubt the rightness of their actions.
> The rattlesnake approves of himself without reservations.

The self-critical jackal does not exist.
The locust, alligator, trichina, horse fly
Live as they live and are glad of it.

The killer-whale's heart weighs one hundred kilos
but in other respects is light.

There is nothing more animal-like
than a clear conscience
on the third planet of the Sun.

Animals can indeed seem blessed with a *"clear conscience"* and they can seem to *"live as they live and are glad of it."* As mentioned above, sports (as well as religion) can perhaps be seen as an immensely popular 'therapeutic fabulation' to satisfy this deep yearning to recuperate a lost, self-evident life propelled by an animalistic sense of purpose. Doping, as a sobering testament to our normatively 'natureless' existence, ruins the animalistic flight of fancy that is sports.

Ultimately, however, it is vital that these flights of fancy remain recognized as such: as therapeutic fabulation, as (rationally-)irrational 'coping practices' or *"psycho-poetics"* (Flanagan 2007) that, in Sandel's words, *"serve our purposes and satisfy our desires."* On a conception of human dignity in which intellectual integrity is pivotal, that dignity compels us not to get too carried away by athletic or religious make-belief about living a Nature-given, Purpose-driven life. Such practices are to be understood as artful 'play' of the *Homo ludens* (Huizinga 2008 [1938] ; Suits 2014 [1978]).[13]

Furthermore, there is a sense in which doping could drive home the unsettling thesis of both Huizinga and Suits that human life, wherever it moves beyond the preliminary business of overcoming obstacles to welfare and free self-determination, turns into a 'game' – that is: *"the voluntary attempt to overcome unnecessary obstacles"* (Suits 2014 [1978]: 41). Suits speculates that a life in which the need for instrumental labour is overcome – a life in which one finds oneself 'no longer of any use' – would commonly be considered superfluous and pointless, and people would resolve this frustration by resorting to self-deception, creating for themselves all manner of purposeful activity which they believe to be of vital necessity. The whole pseudo-instrumental enterprise would, however, be a tragedy, if not a farce, of self-deception.

In this sense then, doping might even be engaged in to deeply testify of one's dignity as a *Homo ludens*. In direct opposition to both the animalistic and religious conceptions

[13] In my rendition of the *Homo ludens,* I add the dimension of the self-made body to the existentialist understanding presented by Suits, who had already radicalized the existentialist dimension of the *Homo ludens* when compared to Huizinga.

of sports (non-artistically understood), via doping one can affirm and embrace the self-understanding that eventually, human beings are bound to live a life beyond instrumental labour and compulsion: playing 'useless' games of their own devise, in 'useless' bodies of their own devise.

It seems quite apt to consider human life, the human body included, as one's own (potential) work of art, as an artifice of one's own will: one's will to keep on living, for starters, followed by one's will to exist in certain ways chosen out of one's sphere of possible modes of being. Human nature may be exactly this: to find, at the outset, *"nothing to affirm or behold beside one's own will."* Human dignity then lies in accepting and affirming this Ourobouros-like predicament we find ourselves in: being fundamentally circular 'strange loops' (Hofstadter 2007). Contra Sandel, such a vision of freedom is not at all flawed. But he may be right in finding it uncomfortable to the point of desperation.

3.3.4 Talent As Hereditary Superiority and the Fitness Critique of Doping

Turning away from 'high minded' objections of (superficial) authenticity and (false) humility, a final contender for the categorical preference for talent over doping as an origin of ability is of a 'base' nature. Both sports and beauty pageants are regularly suspected of being perilously primitive, a relapse into more brutish ways of interacting with and appreciating one another. There may be something to that suspicion.

There is one fundamental dimension in which doping cannot provide what natural talent can. Doping lacks the same fundamental thing a silicone-filled bosom lacks: contrary to genetically rooted phenotypical traits, the deeply integrated athletic or aesthetic enhancements are no signals of *hereditary* potential. They can only mimic such a signal. So long as the enhancement technologies do not induce hereditary enhancements (which is, however, not theoretically impossible), their effects are in this hereditary sense categorically more superficial and fleeting. Even if they would be so deeply integrated that they exert their enhancing influence flawlessly throughout the entire lifespan of the doper, perhaps even more reliably and robustly than natural talent ever would, their enhancing influence would never live on in their offspring.

From this evolutionary point of view, it can make deep sense to be outraged by doping: nothing should impress a good beast more than signals of hereditary fitness – such as natural talent – and nothing is more infuriating (or at least off-putting) than being cuckolded into thinking that others are innately fit when actually they aren't. This may be why doping, like hair transplants or breast implants, meets with such ire and scorn. Doping may be duping. Duping about innateness and heredity. It could be interpreted as a form of *mimicry,* triggering mimicry-detection alarms in others.

Evolutionary sense, however, makes little moral sense. To the extent that this 'Darwinian demasqué' would be correct, the moral panic about doping may not be all that moral. To the extent that the deep 'spirit of sport' which doping offends would be so primal, the offence of doping would not be *moral*. Moreover, though such a primal anti-doping spirit may in itself be a-moral, this kind of fitness assessments can deteriorate into positively immoral practices. For instance, it might deteriorate into either a *moral* sanctification of those who happen to be performatively superior – a social Darwinist form of thinking. Equally, it might deteriorate into a moralization of those who happen to carry the hereditarily transferrable potential for superior performance in them – a eugenicist form of thinking. And indeed, modern Olympism has some undigested history on these fronts.

Consider how, from his Social Darwinist leanings, Modern Olympics-founder baron Pierre de Coubertin declared that *"[t]he first essential characteristic of the Modern Olympics is that [...] they constitute a religion. [...] The second characteristic of Modern Olympism is that it constitutes an aristocracy, an elite [...] determined purely by the physical superiority and muscular potentialities of the individual, enhanced to some degree by his will power and his training"* (Coubertin 1935: 52-53). In today's WADA-Olympic Spirit of Sport, sport should be *"a humanistic endeavour to see how far you can go on your own talent"* (Pound in Foddy and Savulescu 2007, see also Sandel 2007, Murray and Murray 2012; World Anti-Doping Agency 2015). The official Olympics PR has dropped its overt appeals to religiosity and aristocracy, once its first and essential characteristics. At the same time however, celebrating the 150th birthday of Coubertin in 2013, then-IOC-president baron Jacques Rogge sung Coubertin's praise with not a single note of reserve (Rogge 2013). This of a man who wrote (pre-WWII, it must be stressed) to his successor Sigfrid Edström how he *"intensely admires Hitler"* and who openly argued after the Nazi-organized games of 1936 how *"the grand success of the Berlin Games has splendidly served the Olympian ideal"* and that *"this glorification of the Nazi regime has been the emotional shock which has allowed for the immense development the Games have known"* (Coubertin in Bermond 2008 : 370-372, my translations from the original in French). Moreover, appeals to natural order and an infatuation with natural talent as a mark of meaning and merit still make up the core of Olympian morality. There has been little engagement with this troubling pedigree of modern Olympism, and indeed, I will argue that it may still be at play, most noticeably in the foundational rationales of anti-doping zero-tolerance.

A number of ethicists has become deeply disconcerted by these appeals to innateness and natural order in anti-doping circles. Eric Juengst, for instance, argues that there is nothing ethical about *"glorify[ing] genetic disparities to the extent of prohibiting their abatement when biomedicine provides the ability to do so."* To the contrary, he judges that to be *"anachronistic and slightly ominous"* (Juengst 2012: 100-101). Maxwell Mehlman openly decries the immorality of anti-doping absolutism *"as an attempt by the gifted and lucky to preserve their unearned hegemony"* (Mehlman 2009a: 87). Torbjörn Tännsjö does the same

from the spectator-side, arguing that his own enthusiasm for contests which celebrate who has the most superior talent is *"upon closer examination[,] not respectable. On the contrary, it is of a fascistoid nature"* (Tännsjö 2000: 9). Recently, bestselling essayist Malcolm Gladwell spread this message to the readership of The New Yorker, openly defending mindful doping practices as *"the means by which pudgy underdogs could compete with natural wonders"* (Gladwell 2013).In his discussion of EPO which can provide the same hematocrit levels to less-talented endurance athletes which the more talented ones enjoy by the accident of birth, Gladwell puts the rhetorical question: *"shouldn't we have to come up with a good reason that one man is allowed to have lots of red blood cells and another man is not?"*

I believe these iconoclasts are on to something. While these criticisms spell out ominous *consequences* antidoping absolutism leads to, there is still further work to be done in elucidating its motivational *origins*. As a result, those who adhere to an absolutist antidoping stance may continue to feel uncomprehended and unchallenged by their critics as to the real heart of the matter. Without engaging with these motives, this can cause the debate to stultify into a for-and-against polemic with people talking past each other.[14] Therefore, in the general spirit of this dissertation and to deepen the challenge, I try to add some emphatic explorations of where deep attachments to talent might spring from.

Sport itself taps deeply into our animal psyche. *"Human civilization has added no essential feature to the general idea of play. Animals play just like men,"* Johan Huizinga famously argued, for just like in human sports, animals too engage in *"regular contests and beautiful performances before an admiring public"* (Huizinga 1949 [1938]: 1). Huizinga goes on to note that *"play, or rather sexual display, is predominant in animal life precisely at the mating-season."* (Huizinga 1949 [1938]: 9), but does not pursue the evolutionist analysis of such sexual and social-hierarchical play much further. Recently, Andreas De Block and Siegfried Dewitte have revisited Huizinga's opening remarks to argue that the cultural phenomenon of sports can be significantly illuminated by evolutionary theory, more specifically the dual inheritance theory developed by Peter Richerson and Robert Boyd (De Block and Dewitte 2009, Richerson and Boyd 2008). This theory distinguishes itself from alternatives such as evolutionary psychology by a foundational acknowledgment of culture as a pathway through which humans inherit behaviour, distinct from but intricately interacting with the genetic pathway. Thus equipped theoretically, De Block and Dewitte point to several evolutionary dynamics that appear to be at play in sports cultures. They argue that

[14] As indeed many feel it has (cf. Kaebnick 2014, Parens 2014), to the point of being made the central topic of the conference "Enhancing Understanding of Enhancement" organized by the Center for the Study of Bioethics at Belgrade University and the Hastings Center, October 27 and 28 2015 in Belgrade.

> sports (like many other games and cultural practices) establish a reliable prestige hierarchy loosely based on (Darwinian) fitness, and that this function is the ultimate cause of the cultural invention of sports (De Block and Dewitte 2009: 4)

In this sense, sport may be *"our species' culturally invented version of the peacock's tail"* (De Block and Dewitte 2009: 5), a way of playing into the preferences of the opposite sex. Their evolutionary understanding of sport, however, is multifaceted. Not only would sports serve as a courting ritual borne from sexual selection *stricto sensu*, it would also serve as a ritual to signal one's fitness to the world at large including one's actual in-groups, the groups one solicits access into, one's adversaries etc.

De Block and Dewitte suggest that Amotz Zahavi's handicap principle, elaborated by Alan Grafen into the theory of costly signalling, can detail how sports serves those functions. The evolutionary rationale of a costly signalling mechanism is that it signals the likely presence of some element of hereditary fitness, and that it does so in a costly way. Thus, only an animal which can bear that cost will be able to reliably signal its fitness. The costliness serves to make it hard or impossible for less-fit animals to mimic *as if* they too are real carriers that element of hereditary fitness:

> The costs of these performances vary among individuals in such a way that the benefits of these performances offset the cost only in a subset that scores high on that aspect of fitness. Compared to a well-endowed individual, a less-endowed individual needs to divert much more energetic resources to perform the activity that signals fitness. (De Block and Dewitte 2009: 6)

Citing Geoffrey Miller, they argue that athletic feats may be costly signals of the 'amplifier' type:

> Each sport could be viewed as a system for amplifying minor differences in physical fitness into easily perceivable status differences, to make sexual choice easier and more accurate. In this sense, sports are culturally invented indicators of physical fitness. (Miller 1999: 253)

This makes Miller cast the 'fair play' ethic in a provocative new light, claiming that *"[s]ports rules are considered 'fair' insofar as they produce the highest correlation between a competitor's fitness and his or her likelihood of winning"* (Miller 1999: 254).[15]

[15] As De Block and Dewitte go on to argue, such evolutionary psychological analyses may contain a substantial amount of truth, but they are not the whole truth. There are, for instance, meaningful roles to play for the factor of luck in many sports, and such 'games of chance' can also be considered fair even if they randomly scramble the correlation between winning and fitness. Nevertheless, even if the link Miller makes between 'fair' and evolutionary 'true play' is not the *one and only* rationale of the complex cultural phenomena of sports, it does seem to be one of its most fundamental rationales.

By extending these Darwinian analyses into the doping debate, a provocative answer surfaces to Gladwell's rethorical question why one man is allowed to have lots of red blood cells and another man is not; a potential explanation of why, as Juengst worries, anti-doping absolutists are so bent on prohibiting the abatement of genetic disparaties in sports. Here then, is the Darwinian démasqué I would propose of 'universally inclusive,' 'fair' and doping-free sports. Firstly, a half-baked notion of *universal inclusivity* is necessary to make the claims to superiority of the winners robustly incontestable: only if there is a competition of everyone against everyone can the victors claim supremacy on the species-level. Secondly, a half-baked notion of *fair play* is necessary to minimize the importance of social privilege/deprivation and other forms of 'circumstantial (bad) luck' (Nagel 1979) on the competition's outcome, which *ipso facto* maximizes the importance of noble birth or 'constitutive (bad) luck.' Thirdly, manifest attempts to compensate for a lack of birth-luck, especially those that mimic the presence of talent, are met with deep intolerance.

Under these conditions, the contenders are to jostle for rank so that – as in Thomas Jefferson's dream of America as the land to be ruled by the *"true, natural aristocracy"* – *"the aristoi are separated from the pseudo-aristoi"* (Jefferson 1988 [1813]: 387). As the Games draw to a close, a 'natural order' will have been approximated, in which a relatively meritless but genetically privileged 'talentocracy' will have cropped up in the higher ranks. This *"lucky sperm club"* (Young 1994 [1958]) can then be staged, medalled and wreathed as the 'meritocracy' – 'truly' and 'deservingly' the best.[16]

If this Darwinian démasqué is sound, what ethical and existential conclusions can be drawn from it? It validates that there is a strong rationale for a categorical pro-talent/anti-doping valuation, but adds that this rationale is an evolutionary one, not an ethical or existential one. As a result, this demasqué deeply disenchants the fixation on talent and innateness. However, this does not imply that a talentocentric fixation is in itself immoral. Instead, it is *a-moral* (cf. infra 3.5.3). To force this a-morality on dissenting others, however, would become immoral. To prevent this from happening, we should see to it that optional talento*centric* (sub)cultures do not turn into universally mandatory talento*cratic* ones.

[16] Consider the following slide from 'fair' to 'true' in the antidoping argument made by ex-cyclist and sports manager Johnny Vaughters: "To argue that if everyone is doping and using the same dope, then it's fair, is bunk. Different drugs affect different metabolisms in different ways and some people will always benefit more from certain drugs than others. This is why doping must end, or we will not get to see who is truly the best." (Vaughters cited in Foddy and Savulescu 2007: 515)

3.4 Proper Processes. Just Do It, or: Let Nature Do It for You

If one accepts the conclusion that a proper athletic accomplishment does not necessarily have to originate in natural talent, the most fundamental type of objection to doping seems resolved. Nevertheless, one can still object that the *process* of an athletic performance must be natural in some crucial way.

When discussing proper origins, concerns revolved around doping threatening to uproot a person. The proper processes concerns are seemingly more mundane. No existential crises are feared of doping sinners becoming debased, hubristic and aporic 'hyperagents' (Sandel 2007). On the contrary, the doping athlete is here experienced as a dud – a non-agent. The overt action is only *apparently* undertaken by the athlete. In reality, due to the aid, it actually becomes a non-act to a substantial degree. A doping athlete is then seen as one who fraudulently tries to pass as the agent accountable for her feats while in fact she relied on a 'hidden helper' which did a substantial amount of the work *for her*.

The issue seems to revolve around *accountability:* is a doped athlete really performing the feat herself, can she be held accountable for the outcome, does she deserve the pride and the praise, the position and the prize?

It is intuitively appealing to think that no, she doesn't deserve full credit for the performance, and if the context would be that an athlete A took recourse to such a 'hidden helper' while her competitors B to E all competed without it, 'on their own inner strength,' then A cheated or is at least less deserving of her final position, even in the absence of an explicit ban: regardless of regulations and stipulations, it would be an offense against this intrinsic, essential characteristic of virtuous sport – that you yourself do the work.

We can even take it one step further. As the anti-doping author Bill McKibben notes while contemplating the ethical inner dynamics of his own recreational running experience, even in a non-competitive context would the insertion of such a foreign doping agent in your own body cause an unacceptable accountability problem. According to McKibben, this would upset the beneficial, natural way in which you can consider yourself the author of your own actions, and the interference of the performance enhancer with your natural capacities would send you reeling in *"a spiraling self-doubt"* (McKibben 2003: 55) of not being able to ascertain if it *was 'really you' who is accountable* (to be distinguished from the dimension mentioned in the Proper Origins section, where a spiralling self-doubt lay in it becoming muddled *who 'the real you' is* – that is: in a person no longer knowing who she is anymore). For this reason, performance enhancing drugs may be found ethically impermissible in a categorical way, because as soon as you allow yourself to become 'mixed' like that, you will be at a

loss to determine just what you have done 'on your own,' and what was done by the dope.

Appealing as this alarmism may sound as a *prima facie* credible account of proper personal accountability, we must see how this view fares after taking into account the following three issues: (1) the possibility of *agency-enabling* doping, which lifts internal barriers so that one is put at liberty to engage in *increased* exertion; (2) the possibility of *baseline-lifting* doping, which increases the amount of feats one can perform without exertion only to put one at liberty to engage in *identical* levels of exertion when performing further feats at a higher level of performance; and (3) the critical comparison of the possibility of passive reliance on doping to the pervasive reality of our passive reliance on (semi-)automatic assistive processes of our default biological constitution. We must thereby also ask the question why the relatively effortless natural grace of the naturally talented commonly inspires such awe whereas the realization of ease in performance via doping often inspires disgust and outrage.

3.4.1 Agency-Enabling Doping

If we move past armchair philosophy in these matters and look *empirically* at the diversity and detail of how the human body can be stimulated by all sorts of biotechnological interventions, we find that enhancement interventions needn't be *intrusive,* working you like a puppet. They may well be 'eruptive,' lifting internal blockades on agency. In this sense, for instance anabolic steroids are not at all 'mechanizing' or 'passivity-inducing:' they do not make muscle growth 'easy' or 'automatic' as a tenacious caricatural misconception has it. In fact, the actual influence of steroids on the body is *inter alia* that they make the body recover more quickly after very intensive exhaustion, so that you may exhaust the body anew at a quicker pace *provided* that you can muster the willpower to do so (Holowchack 2012, Cooper 2012). Steroids do not do the work for you, on the contrary: they provide you with an opportunity to increase your active effort to exhaust yourself, which you still have to be motivated for. You still have to 'just do it' yourself. Ergo, powerlifting guru Louie Simmons is confident when he says: *"the people who train with anabolic steroids train way harder than the people who don't."* (Simmons in Bell 2008) As such, it seems to be an overstatement to think that all doping agents would 'do the work for you' and erode the degree of active engagement and wilful effort beneath crucial thresholds. As the previous fleeting and phoney critiques, this critique of passivity needs to be deflated from a categorical critique to a probabilistic, circumstantial one.

3.4.2 Baseline-Lifting Doping

What is more, even in the case of specific doping agents which do increase your athletic ability in some decisively 'mechanizing' or 'passive' way, such as blood doping or oxygen chambers seem to do, the most obvious effect, amply demonstrated in the history of sport when new facilitating support practices are being introduced (Van Hilvoorde et al. 2007) is that the athletes with enhanced baseline abilities will seek out new, more intensive and trying challenges. An all-encompassing conception of doping as an 'outsourcing of effort,' setting us on a slippery slope towards a culture of slothful, passive technology consumers (McKibben 2003; Kass 2002) must be dismissed as hyperbolic.[17] As long as we are be able to retain our ability to relocate our locus of active engagement, the 'outsourcing of effort' – be it to some natural or some technological process, be it internal or external – is not intrinsically problematic: after we allowed fiber poles in pole jumping, we literally *raised the bar* and the spirit of sport lived on; and if for instance endurance enhancing doping such as blood doping, oxygen chambers and EPO-injections can be provided in an adequately safe and equitable manner, we could add an extra epic *col* to the Tour de France – or, alternatively, we could use such doping practices to *reign in* current excesses: to remake contemporary cycling into a somewhat more healthy and safe enterprise.[18]

3.4.3 Passive Consumption of Natural Processes

Again, it merits to redirect the critique directed at doping towards natural talent itself, and see how that fares. There seems to be little wrong with relying 'passively' on automatic or semi-automatic bodily processes, for that is the way the vast majority of our countless bodily processes operate, from blood flow to oxygen uptake over habituated skill and countless ways of subconscious mental pre-processing, by which we outsource enormous amount of effort so that our mind is freed up to be occupied with further residual activities. Using the inflated rhetoric of McKibben and Kass, we could say that if we are to some extent 'slothful, passive technology consumers,' then we are to an incomparably greater extent 'slothful, passive *nature* consumers.'

[17] Although certainly, those susceptible to sloth (and this group may well be demographically very large) may indeed use such baseline-lifting doping as a way to lessen the need for their own active agency.

[18] Consider in this regard Denis Hauw's analysis of how contemporary elite cyclists often revert to dope simply in order to cope with the excruciating demands put on their natural constitutions by organizers and audiences (Hauw 2012).

As mentioned at the beginning of this chapter, the spirit of sport can at times be seen to revolve around notions of effort and exhaustive training. Intriguingly however, the athletes considered to be 'the greatest of them all' are often those who to a certain but crucial extent exhibit *the exact opposite* of effort and exhaustive training: public exhilaration is heightened to a whole new level if an athlete can pass a heroic athletic test 'without even breaking a sweat.' The natural grace of a Usain Bolt or a Michael Jordan inspires the greatest awe:

> [S]triving is not the point of sports; excellence is. [...] No one believes that a mediocre basketball player who works and trains even harder than Michael Jordan deserves greater acclaim. (Sandel 2007: 28–29)

> [E]ven if we are prepared to admire people who have worked hard [...] I believe that we will have added admiration for a person who excels without having worked hard. If a middle-aged member of the audience who has never exercised unexpectedly walked down from the stadium and joined the Olympic 10,000 m race and, because of superior natural talent, defeated all the finalists, the success would be formidable. Our admiration for this person would be unlimited. So, basically, it is talent (which can be genetically explained), not achievement, that we admire above else. The point of the contest is to show who has the most superior talent. (Tännsjö 2000: 18)

But this confronts us with two apparent contradictions:

1. The WADC-spirit of sport is often portrayed to consist crucially in *effort and training,* but if someone with great natural talent can perform the athletic feat *(comparatively) effortlessly:* even better.
2. If a *gifted* athlete performs effortlessly, that is good or even wonderful, but if a *doped* athlete would perform effortlessly, that is bad or even horrendous.

In 3.3.1, I cleared up the first contradiction by noting the greater appreciation of deeply ingrained potential. The second contradiction, an apparent double standard, can be made intelligible by referring back to the talentocratic/'eugenic' spirit of sport. Today's class of the effortless naturally talented can be seen as the heirs of the radically different 'gentleman-amateur' spirit of sport that heavily influenced the Olympic Games and other sports milieus until mid-twentieth century, and was its official doctrine until the late 1980s (Guttman 2002). In that spirit of sport, sport was supposed to be a *leisurely* activity, certainly not something to spend all your waking hours on, let alone to engage in as a *profession* – that would be disgracefully obsessive and beside the point of sport as a display of readily available bodily capacity and leisure time. Certainly in its nineteenth century beginnings, modern sport was meant to exhibit a spontaneous 'natural nobility.' The 'amateur gentlemen' athlete was to prove his noble pedigree via good sporting capacities, which provided proof 'of being of good stock' in an (often implicit,

but occasionally explicit) eugenic sense. A sport performance, though very energetic and exhaustive, was nevertheless meant to exhibit, if it was to be truly outstanding, a measure of cool off-handedness – to come across as spontaneous demonstrations of stallions who have 'plenty more where that came from.'

Today sport may have been turned into an industry filled with people *working* as athletes and spending their entire (young) life in specialized training facilities, and viewed from the old amateur spirit of sport, this would be seen as an unsavoury medico-scientific conditioning of people like rats in a cage (Young 1996, a critique I subscribe to myself), which threatens to skew the view on who belongs to 'the *natural* aristocracy' (Jefferson 1988 [1813]: 387–391; Mehlman 2009a). Interestingly, however, even in the contemporary high-intensity sport industry, sport fans commonly continue to reserve a modicum of extra appreciation to those athletes who still manage to exhibit that Old World regal sense of being nature's aristocracy (for instance the flair of Michael 'His Airness' Jordan) or being, in a more straightforward way, pure 'forces of nature' (for instance the frolicking Usain 'Lighting' Bolt). This, then, is how the double standard about effortlessness can be made sense of: such 'off-handed' effortlessness of Jordan, Bolt and consorts is something completely different than the 'hands-on' effortlessness induced by an intrusive intervention in one's body with the explicit intention to maximize ones athletic performance. Not only could such endeavours of biotechnological self-change bespeak a fundamental character flaws of over-eagerness (a probabilistic critique I again subscribe to myself), moreover they are a corruption of sport as a transparant testing ground for talent-centered, genetic hierarchies (a categorical critique I would, on the contrary, staunchly oppose as indicative of a social Darwinist if not eugenicist (im)morality).

In sum, as discussed here, these three concerns about proper processes fail to provide compelling reasons to demand that the processes of athletic accomplishment be *natural.*

Concerned about the neglect of the proper processes of human activity, Leon Kass writes: *"there is a sense that the "naturalness" of means matters. It lies not in the fact that the assisting drugs and devices are artefacts, but in the danger of violating or deforming the deep structure of natural human activity."* From this concern, he goes on to famously conclude that *"the engaged and energetic being-at-work of what nature uniquely gave to us is what we need to treasure and defend."* (Kass 2003) I share much of this concern: I find deep value in our engaged and energetic being-at-work, and self-abdication into slothful passivity and fatalism must be strongly resisted. But ironically, it is for that exact same reason that I cannot accept the exclusivist clause that this must be done and can only be done with *"what nature uniquely gave us."* Not only does this neglects (or in the worst case: denigrates) those who are engaged and energetically-at-work *with what culture and technology gave them*. For instance, the double amputee and 'blade runner' Oscar Pistorius provides a powerful example of the dignified way in which a person can deeply submerge himself in a partly artificial bodily predicament, and our spirit of sport should

honour such dignified interactions with deeply integrated artifice (see also Magdalinski 2012). Moreover, it neglects the fact that the virtue of temperance should also be applied to the extent in which we adapt a passive consumerist stance with regard to how (semi-)automatic natural processes do the work for us, and to the extent in which talentocrats would improperly claim accountability and merit for endowments that are not their own doing, but rather their arbitrarily obtained good fortune.

To conclude, these considerations seem to result in the following general character criterion about doping practices with regards to the issue of Proper Processes taken in isolation:

> Further possible issues suspended, insofar as a doping practice only *provides a constitution* from which all worthwhile aspects of engaged and energetic being-at-work are safeguarded, it is permissible. Insofar as a doping practice enlarges the extent in which one can be engaged and energetically-at-work, it is commendable and may be positively dignified.

3.5 Proper Outcomes. Sporting Towards a Blank Slate or To Showcase a Blueprint

If one accepts the conclusion that a proper athletic accomplishment does not necessarily have to draw on natural origins nor take place via natural processes, the two most formidable objections to doping have been resolved. One might, however, still object that the end states reached in a proper athletic accomplishment must always remain recognizeably human. That is: it must result in (the perfection of) an embodiment and performances that remain within the phenotypical range of *Homo sapiens.*[19]

Modern sport can be seen as a twin project: the perfecting of man, together with the *purification* of man. When Pierre de Coubertin rekindled the Olympian Flame in 1894 there was a lively sense that human biology still harboured vast amounts of untapped potential. Human living conditions were to a large extent unsanitary and unscientific, so

[19] See, for instance, Tara Magdalinski's discussion of the 'natural romanticism' that fueled the creation of modern sports as a wholesome activity (Magdalinski 2012). In addition, however, John Hoberman describes in his contribution the long history of the *Leistungsprinzip* or Performance Principle as a motor of modern sport (Hoberman 2012). For more on the long history of human intervention in nature in the name of increased productivity and efficiency, see Claude Olivier Doron's introduction to Missa and Nouvel 2011 .

there were countless medical, hygienical, nutritional, scouting and coaching advances lying ahead. By scouting for the most well-endowed individuals of the human race, improving their hygiene and nutrition, and enlisting them in a meticulously planned and monitored scheme of training, the 'purified and perfected man' would be approximated ever more closely. From that historical vantage point, the Olympics could be given the motto *Citius, Altius, Fortius* (Faster, Higher, Stronger) from the best intentions: it was a clarion call for spreading the liberal dream of public health programs, the integration of physical exercise is a well-balanced art of living, open meritocracy and humanism predicated on the unity of mankind (Coubertin 1992 [1913]). *In tempore non suspecto,* it was not yet read as an implicit invitation to perform-at-all-cost and obsess over outward results, the naturalness and the character of the athlete be damned. The project of Coubertin and his successors was to display virtuoso expressions of the universal 'blueprint of humanity' seen as common heritage of mankind that is to be cherished, conserved, purified and perfected. The spirit of sport was one of 'Vitruvian perfectionism,' after the image of Leonardo da Vinci's blueprint drawing of the perfectly proportioned, well-created Vitruvian Man (Meacham 2012, Magdalinski 2012, McNamee 2012, Hoberman 2012).

3.5.1 Reshaping the Human Figure As Straying from the Original Plan

The belief that humans are the more or less imperfect instantiations of an underlying pure template (a Platonic Form, a divinely ordained blueprint, an essentialist 'natural kind,' etc.) has been decisively discredited by an overwhelming body of scientific evidence. Human biology is in no way a fixed natural kind containing a distinct essence of humanity. Nor can mankind be seen as some sort of pinnacle of the natural world – a highest or most perfect species (Dawkins 2006; Stringer 2012). Such beliefs, and refined variations thereupon, nevertheless remain widely held and are occasionally explicitly articulated and argued for, most noticeably in theologies of sport (Weir 2011, see also Hoberman 2012).

3.5.2 Reshaping the Human Figure As Repugnant Deformation

Alternatively, one could argue for the categorical denunciation of doping on the grounds of a deeply felt repugnance. Such profound sentiments of repugnance in the face of too aberrantly 'unnatural' entities and practices have been intensively studied in (evolutionary) psychology. Doping and the deviant embodiments it may bring about can indeed ignite deeply ingrained aversions. For instance, the practices of ingesting, injecting or implanting some enhancing substance may spark aversion based on the avoidance of 'contamination'-like interactions, even if, in reality, the substance would

be perfectly healthy or even health-improving (as, for instance, the widespread 'enhancement' practice of vaccination does). Also, introduction of enhancing substances drawn from other animals may spark aversions based on the avoidance of species intermingling, as it might also frustrate the deeply ingrained (but all too 'rough and ready') cognitive mechanisms to classify entities into distinct and essentialistically understood 'natural kinds.' To conclude, doping that effectively 'deforms' the natural human form is also likely to jar the manifold ways in which the human mind is preconfigured to react to the particularities of characteristically human features – such as characteristically human body shapes, facial features, movement patterns, odours, etc. The deviant embodiments doping can bring about might run counter to these deeply entrenched and parochially specified systems of perception and evaluation. As a result, they might create possible intolerable levels of confusion, frustration and aversion, which may in turn solidify into a stance of 'allergic' repugnance, intolerance and, in the most extreme cases, outright hatred and aggression against those who dope and turn themselves into 'entartete' deviants of the normal, natural human mould. The nature of the problem, however, would not be that there is anything actually *wrong* with these 'Entartung' practices. Rather, the nature of the problem is that certain things 'do not compute' in certain recesses of our minds, leading us into a state of *"moral dumbfounding"* (Haidt 2001, Pinker 2002) wherein we might feel as if certain things are deeply wrong, without there being anything actually wrong (besides one's own mental discomfort).

Whether they are shaped by these quirks of evolutionary psychology or not, and whether they cannot be helped or instead can be mitigated or fully overcome, in principle everyone is entitled to have the tastes and distastes one has – no questions asked.[20] As such, a value community that finds doping categorically repugnant could be allowed to organize sports activities in which doping athletes will not be allowed because that community finds them repugnant – similar to how a swing dance troupe may enforce an internal ban on cha-cha should they for instance find cha-cha intolerably campy and a ruination of the brittle and unique internal spirit of swing, which they perceive as the only way to dance.

This, however, works both ways. Certain (minoritarian) value communities may find very attractive, on account of their own aesthetic idiosyncrasies, certain 'unnatural' bodily figures and functionalities (such as for instance enormous amounts of bulging muscle mass and an 'inhuman' weightlifting capacity, hyper-flexible limbs and an

[20] For instance, Andreas De Block examines the possibility to ground the categorical objection to doping on such widespread, evolutionary rooted distastes. The anti-doping project would then no longer have to argue for the increasingly contested position that doping is categorically un*ethical*, but instead could take the more robust line of argument that doping is categorically un-*aesthetical* (De Block 2012).

'inhuman' snake-like flexibility, surgically split tongues, abnormally large and spherical breasts, scarred, pierced or tattooed skin, etc.) or figures and functionalities that are not 'naturally,' normally found attractive (baldness, flabbiness, a combination of male and female sexual traits, etc.). Even if some such practices may be met with widespread or near-universal repugnance, in a liberal, human rights abiding society we must be watchful that such majoritarian repugnance does not turn into an officially enforced 'oppressive taste' (Brownsword 2012). Moreover, there may be ethical reasons to encourage the aesthetic appreciation of the two types of deviance mentioned, as they may lessen the pressure put on people to conform to (possibly suspect and oppressive) norms of 'naturalness' and 'normality.' For this reason, some pro-enhancement movements align themselves with the disability rights movements, with the liberation from uniform beauty ideals, etc. as the way forward for accepting deep societal diversity and queerness (Carrico 2009, Magdalinski 2012)

3.5.3 Reshaping the Human Figure As (Mutual) Alienation

Fostering the tolerant or even appreciative cohabitation of individuals and communities with deviant lifestyles and embodiments can, however, easily turn into an overly naive neglect of the enormous practical difficulties that are raised by constant and pervasive societal friction between differently natured communities. Consider, for instance, the difficulties to manage the peaceful cohabitation of differently *cultured* communities in multicultural political constellations. Moreover, such celebration might tip over into a somewhat nonsensical appreciation for diversity and deviance for their own sake, in which the maintenance and construction of communitarian ties threatens to be neglected. As Darian Meacham argues, perhaps not a biological but a more symbolical, *phenomenological* sense of species recognition and belonging seems to be a fundamental human need (Meacham 2012). This, however, can be historically negotiated and constructed. Indeed, in line with Dale Carrico's thoughtful though informal writing in this regard (2009), I equally wish to underscore, contra libertarian and technophile transhumanism, the primordial importance of civic and communitarian negotiation in accommodating disturbingly deviant, 'queer' (embodied) lifestyles.

To take a sports-specific example, there is a legitimate demand that the activity of differently embodied athletes can be compared in a meaningful and practicable way. For instance, it is legitimate for organizers of running meets (1) to investigate whether Oscar Pistorius, when he is taking great strides on prosthetic blades, is engaged in an activity that can still be categorized under the negotiated rubric of 'running' – and not, for instance, under a substantially different rubric of 'blading.' (2) Should substantial differences be found, a further negotiation should be engaged in to decide whether the kind and degree of the difference can be adequately assessed and compared. (3) If, after

a final study, corrective circumstances can be added so as to redress irrelevant inequalities between the differently embodied athletes, it may still prove possible to conserve both the *"sweet tension of uncertainty of outcome"* (Fraleigh 1984) as well as the competition as a test of relevant capacities, most importantly as a test of character and will power, even if athletes are substantially 'other' or 'alien' towards one another. As the specifics of such methods of inclusive organization entail largely 'logistical' issues instead of ethical ones, I will not pursue them further here. However, for such humane, inclusive negotiations to take place, it seems imperative that the demands for dominance of innate natural talent and for *biological* instead of phenomenological species similarity be relaxed, if not explicitly discarded (Mehlman 2009a).

3.6 Conclusion

On the one hand, doping – constructing a substantially artificialized embodiment and drawing on that embodiment to realize athletic performances – has been analysed to be neither debasing, mechanistic nor dehumanizing. On the other hand, the demands for the necessary presence of natural talent, for its dominant presence, and for taking protectionist measures to ensure that natural talent remains a necessary and dominant requirement have been analysed as 'talentocratic' demands that can become riddled with dubious comfort-seeking, overly superficial conceptions of authenticity and agency, oppressive prejudice against deviants and in the worst case scenario: share with certain transhumanisms the flirtation with social Darwinism and literal eu-genics: holding in higher esteem those who happen to have some genetic endowment deemed better.

This is not to say that we should turn a blind eye to talent. Our talents, together with the cravings and needs that emanate from the constraints of human biology, can legitimately play a dominant role in 'fleshing out' the specifics of what is and what is not wholesome to pursue, as they make up a fair part of the tangle one finds oneself thrown in (Bonte 2011). They are largely what make us get up in the morning and what keep us (pre)occupied throughout the day. But existentially, their role is secondary (Bayertz 2003): having a talent, or being natured in a certain way, does not make the cultivation of that talent or the conservation of that nature meaningful. One's talents, one's nature, and all the comfort and satisfaction one may draw from it, may still be both ethically dubious and existentially absurd.

We deny the depth and difficulty of human existence if we con ourselves into thinking that there is a 'given' human mould we all share, together with a mould with specific traits, talents and afflictions 'given' to each individual, that is meaningful in and

of itself. We are not 'meant' to have the improvised, ramshackle nature given to us by the 'Blind Watchmaker' of natural selection (Dawkins 2006 ; Buchanan 2011), nor are we 'meant' to continue the business of evolution, as some transhumanists would have it. Rather, we are free and forlorn – that is the (perhaps poisoned) 'gift' of life as a human, which spoils and makes impossible the self-evident, passive life of an animal, no matter our nostalgia for the lost comforts of that Arcadia. This protean self-understanding does not deliver some final blow to religion. Indeed, it can itself be a religious sensibility, such as in the hallmark 1486 text of renaissance humanism, Pico della Mirandola's *Oratio on the Dignity of Man* (cf. supra 2.3). It can also, of course, be a secular sensibility, borne from a sobering understanding of the randomness of biological evolution and an uncompromising adherence to the force of the naturalistic fallacy (Caplan 2006a).

I believe we cannot, without self-deception, *choose against self-constitution.* Standing on the tipping point of the tense cognitive dissonance between *finding ourselves,* on the one hand, foundationlessly free and relentlessly responsible to whichever extent our sphere of potential agency might grow, and *wanting ourselves* to be self-evidently driven by a nature that was meaningfully given on the other hand, we cannot abdicate from choosing some resolution of the dissonance. But we can make a fundamental choice on how we will rise to that existential occasion. We can either create a counterfactual belief that we are *not* the creator and carrier of our own life project, or we can (with courageous humility even) accept and affirm our self-shaping predicament. Entertaining counterfactual beliefs in nature's normativity can be a highly wholesome coping practice – invigorating mythmaking to provide repose from existential gravitas. I have argued that this can be an enjoyable opiate integrated in a virtuous art of living, when dosed in good measure. But as a constant belief, held in earnest and motivationally rooted in a 'fear of freedom' (Fromm 2013[1941]), it becomes a cause for great ethical concern.

I cite in full agreement that *"[a]n untroubled soul in a troubling world is a shrunken human being"* (Kass 2003) and that we must not *"remake nature, including human nature, to serve our purposes and satisfy our desires"* (Sandel 2007: 26–27). Yet my argument leads me to conclude that Kass' and Sandel's proposals may ironically root in the very indignities they rail against. Building on humanist-existentialist strands of thought, the violation of human dignity occurs not by transgressing supposedly ethically charged natural constraints on our existence. In a sense, to the contrary. A person violates her dignity when she falls beneath a threshold of maintaining moral character and realizing virtues, such as truthfulness and moral courage. Now, when a person denies our foundationlessly free and relentlessly responsible predicament, and grounds her denial not in rational rebuttal but in a belief for which no argument has been given and which is conspicuously convenient (*in casu,* that one has been given a meaningful nature in which one can find true purpose and authentic fulfilment), then indignity seems nigh.

I have sought to identify and critique a cluster of 'talentocratic' assumptions on which much intrinsic, categorical anti-doping thinking seems to be premised, and have pitted it against a virtue-based account of dignified self-constitution. Pending further scrutiny, I would wager that it is better – not in terms of contentment and happiness but in terms of dignity and the love of truth – to first gauge our god- and nature-forsaken condition to the fullest, and then from that vacuous and circular predicament, testify of our will to live in truth, beauty and goodness by improvising something out of ourselves – body and all – in a 'virtuous exploration of bodily virtuosity.'

Perhaps, beneath the governing taboos and odium in public life today, at intersections of virtue-ethical undercurrents with clandestine doping underworlds, such virtuous explorations have already been undertaken in more or less erratic, confused, conflicted or understated ways. Even if contemporary doping practices would all prove to be deeply corrupted by the thicket of *other* problems non- intrinsic to doping itself (and I would argue that such corruptions do indeed run deep and wide given the perfectionist, puritan, individualist, domineering and exploitative values running through contemporary capitalist culture, sports culture surely not excluded), that would still not allow us to categorically conclude against doping. Instead, it would call on us to combat those corruptions not from 'anti-doping' grounds, but from an understanding of all that needs to be put in place before doping can be done in dignity.

Sports institutions based on Olympism face a particular challenge if no intrinsic objections against doping can be found which all reasonable moral communities should accept. Given the universalist ambition of Olympism to include 'all games for all peoples' (Parry 2009), how should the Olympic Movement respond to the jarring figure of the reasonable, virtuous doper? If the commitment to universal inclusivity outweighs the attachment to natural talent, it seems that she should in principle be welcomed and that, once forms of doping unburdened by decisive extrinsic objections are made available, provisions should be made to accommodate her. If instead the attachment to natural talent trumps the commitment to inclusivity, the Olympics may have to check its doctrine of universalism and clarify that it will host only 'all games for all natural peoples.'

Chapter 4 Increasing Responsibility Over One's Own Nature. The Case of Chemical Castration[1]

Abstract

In several jurisdictions, sex offenders may be offered chemical castration as an alternative to further incarceration. In some, agreement to chemical castration may be made a formal condition of parole or release. In others, refusal to undergo chemical castration can increase the likelihood of further incarceration though no formal link is made between the two. Offering chemical castration as an alternative to further incarceration is often said to be partially coercive, thus rendering the offender's consent invalid. The dominant response to this objection has been to argue that any coercion present in such cases is compatible with valid consent. In this article, we take a different tack, arguing that, even if consent would not be valid, offering chemical castration will often be supported by the very considerations that underpin concerns about consent: considerations of autonomy. This is because offering chemical castration will often increase the offender's autonomy, both at the time the offer is made and in the future.

[1] This chapter is a retitled version of Douglas, Bonte, Focquaert, Devolder and Sterckx 2013.

4.1 Chemical Castration of Sex Offenders

Castration has been used in several jurisdictions to prevent recidivism in sex offenders. It can be achieved either by means of a surgical procedure (so-called surgical or physical castration) or through the administration of pharmacological agents (chemical castration). The aim of both procedures is to reduce testosterone to a prepubescent level, thereby attenuating the offender's sexual urges and helping to suppress sexually deviant thinking and behaviour.

4.2 Background

Compulsory surgical castration has been practised for thousands of years for various purposes, including as a criminal punishment (Heim and Hursch 1979). In the 20th century, voluntary or compulsory surgical castration of sex offenders was practiced in a number of U.S. states and several European countries, including Denmark, Norway, Estonia, Finland, Iceland, Latvia, The Netherlands, Switzerland, and Germany. There is no robust data on effectiveness. However, reviews of the data that are available report that, over follow-up periods ranging from 1 to 35 years, remarkably low recidivism rates of 2.5–7.5 percent were found after surgical castration compared to 60–84 percent in offenders left "untreated" (Heim and Hursch 1979; Weinberger et al. 2005).[2]

Though its use has declined, surgical castration of sex offenders still occurs, including in the West. At present, voluntary surgical castration of sex offenders is legal in California, Florida, Iowa, Louisiana, and Texas (del Busto and Harlow 2011). In Europe, it has remained in limited use in Germany and more widespread use in the Czech Republic, where, between 2001 and 2006, more than 50 sex offenders underwent surgical castration (European Committee for the Prevention of Torture 2009).

However, from the 1960s, most jurisdictions replaced irreversible surgical castration of sex offenders with reversible chemical castration. This has typically been achieved through the administration of medroxyprogesterone acetate (MPA) or cyproterone

[2] Other reviews have found lower rates of recidivism for "untreated" sex offenders. For example, while noting many defects in the studies available, Furby, Weinrott, and Blackshaw (1989) report that sex offender recidivism rates in "untreated" offenders in North America are typically between 10 percent and 40 percent. Some studies have also found slightly higher recidivism rates in surgically castrated offenders. For example, Wille and Beier (1989) identified a recidivism rate of 11 percent over four years of follow-up.

acetate (CPA), with MPA being the agent of choice in the United States and CPA the usual agent in Europe, the Middle East, and Canada (Meyer Cole and Emory 1992; Gordon and Grubin 2004; Thibaut et al. 2010). CPA is licenced in more than 20 countries to lower sexual drive in adult men with paraphilias, that is, exhibitionism, frotteurism, voyeurism, fetishism, sadomasochism, sexual masochism, sexual sadism, paedophilia, and paraphilias "not otherwise specified" (Gordon and Grubin 2004; Thibaut et al. 2010). It has not been approved by the U.S. Food and Drug Administration (FDA) because, based on animal research data, it is suspected to induce liver cell carcinoma (Neumann et al. 1992; Kasper 2001). By contrast, MPA treatment, which is often given in the "depot" or sustained-release form Depo-Provera, was abandoned in Europe due to the severity of the side effects (Thibaut et al. 2010; see section on "Effects" below for discussion).

In the 1980s, an additional class of pharmaceuticals for reducing recidivism in sex offenders became available: the SSRIs (selective serotonin reuptake inhibitors). SSRIs are primarily used to treat depression and anxiety disorders but may also be useful in some mild cases of sexual offending (Bradford 2001; Thibaut et al. 2010). Subsequently, new hormonal agents—the gonadotrophin-releasing hormone (GnRH) agonists—have also come into use. These drugs are primarily used to treat hormone-sensitive prostate cancers. However, they dramatically reduce testosterone levels and have been used to reversibly decrease sex drive in male sex offenders.

4.3 Effects

We will understand chemical castration as the administration of CPA, MPA, or GnRH agonists where the intention is to reduce testosterone to prepubescent levels. Chemical castration of sex offenders has most frequently targeted individuals exhibiting paraphilias. Not all sex offenders suffer from paraphilia and not all paraphiliacs are sex offenders. However, paraphilias are more prevalent in sex offenders than in the general population, with exhibitionism and paedophilia being most common (Gordon and Grubin 2004; Thibaut et al. 2010). Chemical castration via administration of CPA and MPA has been found effective in reducing recidivism in sexual offenders with paraphilias in some small-scale, controlled studies (for example, Fedoroff et al. 1992; Maletzky, Tolan, and McFarland 2006; Meyer et al. 1992). However, other studies found

no significant effect (for example, Hucker, Langevin, and Bain 1988; Maletzky 1991).[3] Several "unblended" studies have shown high efficacy rates for GnRH agonists in dramatically reducing testosterone levels and self-reported deviant sexual desires and behaviours, including in individuals who did not respond to CPA or MPA. However, no randomised controlled trials have yet been published (Thibaut et al. 2010). Thus, for both traditional agents and GnRH agonists, evidence for effectiveness is not robust. Moreover, chemical castration appears to be ineffective in antisocial or psychopathic sex offenders who do not suffer from paraphilia (Berlin 2009), and certain comorbidities may preclude effective intervention in individuals with paraphilia (Saleh and Guidry 2003).

A range of negative adverse effects have been associated with chemical castration. Like surgical castration, it initiates andropause (a male equivalent of menopause) and may result in severe mood instability and, in some cases, clinical depression including suicidal ideation. It may also cause weight gain, insomnia, hot flushes, diabetes, feminization, migraine headaches, and, especially in cases of long-term use, bone demineralization (Garcia and Thibaut 2011).

Though some of these adverse effects occur regardless of the means of castration, GnRH agonists may achieve lower testosterone levels while having fewer side-effects than CPA and MPA (Garcia and Thibaut 2011; Rösler and Witzum 1998). However, the risk of bone demineralization remains and may require additional treatment (Dickey 2002; Garcia and Thibaut 2011; Rösler and Witzum 1998). Nevertheless, according to the

[3] Most studies have investigated the effectiveness of "treatment" of sex offenders, where treatment typically consists in psychological therapy but may include chemical castration. Some review studies have shown a positive effect of psychiatric interventions (mainly psychotherapy, but in some cases also including chemical castration) on recidivism rates (Hall 1995; Hanson 2002, Gallagher et al. 1999; Lösel and Schmucker 2005), whereas others have not (Furby et al. 1989; Rice and Harris 2003). Moreover, there are substantial differences in the reported effect sizes (for example, d= .12 in Hanson 2002; and d= .47 in Gallagher et al. 1999). Lösel and Schmucker (2005) found 37 percent less sexual recidivism in treated offenders compared to controls, with the highest treatment effect in biological treatment programs (i.e., chemical or surgical castration). A total of eight surgical castration studies and six chemical castration studies were included. Of the six chemical castration studies, only two found a significant reduction in recidivism rates. None of the castration studies involved an equivalent control group (Eher et al. 2007). In general, most of the studies included in these meta-analyses have methodological limitations (for example, lack of a control group or nonequivalent control group, nonrandom participant assignment, small sample sizes) (Eher and Pfäfflin 2011). Nevertheless, according to a recent review by Eher and Pfäfflin, there is "evidence that treatment of sexual offender[s] is effective, as long as the program adheres to the principles of RNR [risks, needs, responsivity principles]" (2011, 9). A recent RNR-based meta-analysis (Hanson et al. 2009) found lower recidivism rates for treated sexual offenders compared to controls (10.9 percent versus 19.2 percent), similar to other meta-analyses (for example, Lösel and Schmucker 2005: 11.1 percent versus 17.5 percent; Hanson 2002: 12.3 percent versus 16.8 percent). Although the authors originally planned to include chemical castration studies in their meta-analysis, none of these studies met their inclusion criteria regarding minimum level of study quality.

World Federation of Societies of Biological Psychiatry (WFSBP), *"[w]hen properly administered, with an appropriate protocol in place to detect and treat side effects should they develop, [GnRH agonist] treatments constitute no more or less of a risk than most other forms of frequently prescribed pharmacological agents"* and constitute *"the most promising treatment for sex offenders at high risk of sexual violence, such as paedophiles and serial rapists"* (Thibaut et al. 2010: 643; Berlin 2009).

4.4 Current Practice

4.4.1 The United States

Currently, legislation in nine U.S. states allows for the castration of certain sex offenders (Scott and Holmberg 2003: 503; del Busto and Harlow 2011). Legislation in Georgia, Montana, Oregon, and Wisconsin provides for chemical castration only; California, Iowa, Florida, and Louisiana permit both chemical and surgical castration; and Texas allows only surgical castration. In some cases where chemical castration is offered it is formally optional and no link is made between refusal to consent to it and further incarceration, in others chemical castration is mandated as a condition of release, and in others still it is mandated with no formal link to release.

As an example of the latter practice, the *Florida Statutes* (1997: 794.0235) allow the courts in that state to sentence offenders who are convicted of sexual battery to chemical castration (via administration of MPA), either as a stand-alone remedy or in addition to more traditional criminal remedies. Chemical castration is not formally presented as an alternative to incarceration and indeed sentences involving MPA treatment may not be imposed in lieu of, or in return for a reduction of, any other penalty. However, an incarcerated offender who is required to undergo chemical castation on release may nevertheless face a *de facto* choice between chemical castration and further incarceration: He may refuse to comply with treatment, but if he does, this will result in a new conviction involving a felony of the second degree including further punishment. For offenders with a first conviction of sexual battery, the court has discretion over whether to include MPA treatment in the sentence, but for sexual offenders with a prior conviction of sexual battery, MPA treatment, contingent upon the assessment of a court-appointed medical expert, must be included in the sentence. The assessment needs to be performed within 60 days after the sentence imposition. The court order must specify the duration of the treatment, which may last from a few years up to the life of the offender. However, the continued administration of MPA is not legally required if it is deemed medically inappropriate. The administration of the

MPA treatment, in cases of offenders sentenced to a period of incarceration, must start no later than one week prior to release.

4.4.2 Europe

In 2009, Polish President Lech Kaczynski signed a law allowing compulsory chemical castration for certain sex offenders at the end of their prison term. The law holds that certain sex offenders can be forced by the courts, after a psychiatric consultation, to undergo chemical castration upon release. However, the dominant approach in Europe is to offer chemical castration as a formally optional intervention.

In some cases, castration is formally presented as an alternative to continued incarceration. However, in other jurisdictions, the situation is more complex. For instance, in Belgium, psychiatric treatment may be made a formal condition of parole or temporary release (for example, at weekends),[4] but the precise nature of the treatment cannot be specified in advance by the penal authorities and offenders must always give their explicit consent to enter a specific treatment, such as chemical castration (Cosyns 1999 and personal comm.). However, if an offender under treatment is deemed to pose a critical danger to others, he may face continued incarceration (if he has not yet been released) or re-incarceration (if he has). This could occur, for example, because the offender declines chemical castration, or agrees to it, but then fails to comply with the treatment. Thus, though chemical castration is not formally presented as an alternative to further incarceration, it serves as a *de facto* alternative in the sense that declining to undergo castration may in some cases result in continued incarceration or increase the likelihood of re-incarceration.

4.5 Castration, Coercion, and Consent

In Florida, Belgium, and a number of other jurisdictions, chemical castration may be offered to sex offenders as either a formal or *de facto* alternative to further incarceration: Offenders may be presented with a choice between chemical castration and (certain or possible) further incarceration.

[4] Act of 13 April 1995 concerning sexual offences against minors; Act of 4 May 1999 concerning guidance and treatment of sexual offenders. See www.ufc.be, the website of the University Forensic Centre of Antwerp University Hospital (in Dutch).

One common objection to offering chemical castration in these circumstances is that, since the offender's choice to undergo it is partly coerced—he faces the prospect of further incarceration if he refuses—his consent is not valid; that is to say, it does not serve its usual role of justifying the subsequent intervention. For example, Scott and Holmberg suggest that

> [t]he most apparent ethics dilemma raised by [statutes authorising chemical or physical castration of sex offenders in several U.S. states] involves the extent that informed consent issues are sufficiently addressed with eligible offenders. The doctrine of informed consent requires that the individual be competent to consent to treatment, that the consent be informed, and that the consent be given *free of coercion* (2003: 508, emphasis added).

Vanderzyl puts the point more emphatically, arguing that castration, whether chemical or surgical, *"should be rejected as an unacceptable, ineffective and [in the United States] unconstitutional alternative to imprisonment"* (1994–1995: 139). This is due to the *"inherently coercive nature"* of the choice between castration and incarceration:

> the doctrine of informed consent requires a knowledgeable and voluntary decision to undergo treatment, yet offering a convicted offender castration as an alternative to a lengthy prison sentence constitutes an inherently coercive practice rendering truly voluntary consent impossible. Thus, castration should be rejected as a condition of probation (1994–1995: 140).

Similarly, in relation to the chemical or surgical castration of convicted rapists, William Green argues that

> Voluntary consent depends upon a person's ability to make a choice freely. [...] The convicted rapist is faced with two options—a lengthy prison sentence or even death on the one hand and Depo-Provera [MPA] or surgical castration on the other—and cannot be said to have the capacity to act freely in making a choice. Freedom of choice is impossible because the convict's loss of liberty constitutes a deprivation of such a magnitude that he cannot choose freely and voluntarily, but he is forced to give consent to an alternative he would not otherwise have chosen. In such circumstances men are willing to "barter their bodies." [...] As a consequence, the convicted rapist cannot give voluntary consent to an offer of probation which contains a surgical castration or Depo-Provera condition (Green 1986: 16–17).

Finally, in its recent report on surgical castration in the Czech Republic, the Committee for the Prevention of Torture argued that

> given the context in which the intervention is offered, it is questionable whether consent to the option of surgical castration will always be truly free and informed. As was found during the visit, a situation can easily arise whereby patients or

> prisoners acquiesce rather than consent, believing that it is the only available option to them to avoid indefinite confinement (Committee for the Prevention of Torture 2009: 20).

Though the Committee addressed only surgical castration, chemical castration offered in the same circumstances would presumably raise similar concerns about consent.

The argument contained in these passages, though never made fully explicit, appears to be as follows:

1. An offender offered the choice between chemical castration and further incarceration cannot give valid consent to castration.
2. Medical interventions should not be offered in circumstances where valid consent to them is not possible.
   Therefore
3. Chemical castration should not be offered as an alternative to further incarceration.

A common response to this argument has been to reject premise (1). Indeed, it has been argued that though incarcerated offenders offered a choice between chemical castration and further incarceration clearly face pressure to consent to castration, that pressure does not render their consent invalid, for example because their choice is still (sufficiently) voluntary (Rosati 1994; Bomann-Larsen 2011).[5] However, in this chapter, we will not pursue this line of argument. Instead, we will argue that, even if and when there is no hope of obtaining valid consent to chemical castration, offering it may be justified. Thus, we will deny premise (2), maintaining that this is one case in which medical interventions *may* sometimes permissibly be offered even if it will not be possible to obtain valid consent.

First, though, some simplifying assumptions. Throughout, we assume, unless specified otherwise, that chemical castration is to be offered to currently incarcerated offenders or paroled offenders as an alternative (or part of an alternative) to further incarceration. We do not consider whether chemical castration should be offered to sex offenders at the point of initial sentencing, nor whether it should be offered to individuals who have never offended but are at risk of doing so. We also set aside the possibility that chemical castration might be offered in such a way that acceptance of the offer will have no effect on the length or conditions of the offender's incarceration. Though this might alleviate concerns regarding the validity of consent, there may be

[5] Also relevant in this connection: There is some evidence that the conditions under which crime-preventing medical interventions are agreed to by incarcerated offenders are not perceived as coercive by the offenders themselves. See, for example, Rigg (2002); Moser et al. (2004); Poythress et al. (2002); and Redlich et al. (2010).

good reasons not to take this route. Arguably there are, in many cases, reasons for the state to tailor the length of an offender's incarceration to his risk of re-offending, and since undergoing chemical castration might lower this risk in some cases, the state could have good reason to respond by reducing the length of incarceration. Moreover, insofar as chemical castration constitutes a sacrifice made in the interests of the public, there might also be fairness-based arguments for 'rewarding' those offenders who choose to undergo castration with a diminished period of incarceration. For the sake of argument, we assume (though do not claim to have established) that if chemical castration is to be offered to offenders, it should be offered in return for at least some reduction in the length of incarceration.

In addition, we assume that the length of time spent incarcerated if the offender declines chemical castration will be no longer than the time he would have spent incarcerated had chemical castration not been offered. Thus, relative to the situation in which no chemical castration is offered, agreeing to undergo chemical castration reduces the amount of time that the offender spends in incarceration rather than preventing an increase. (This is obviously not the case in Florida, for example.)

Third, we assume throughout that the party which must decide whether to offer chemical castration is the state, rather than, say, individual forensic or medical professionals or agencies. Our question is whether it may be permissible for the state to offer chemical castration as an alternative to further incarceration. We consider the proper role of psychiatrists, parole boards, judges, and so on only insofar as this is relevant to the question for the state.

Fourth, we assume that chemical castration is effective at preventing recidivism, in at least some well-defined classes of sex offender. There is currently no robust evidence to support this assumption (Rice and Harris 2011: 315), however it would be unsurprising if it were accurate, since chemical castration does attenuate sexual desires and has in some cases been shown to eliminate deviant sexual desires and behaviours (Briken, Hill, and Berner 2003). Moreover, even if chemical castration is not yet effective at preventing re-offending, it may well become so in the near future.

Fifth, we assume that chemical castration will be continued only so long as there are no serious side-effects. Thus, we do not consider objections to our argument that rely on the presence of such side-effects.

Finally, a note on terminology. We henceforth use the terms 'chemical castration' and 'castration' interchangeably to refer only to 'chemical castration.'

4.6 Enhancing Future Autonomy

Suppose, for the sake of argument, that it is not possible to obtain valid consent to chemical castration in the contexts we are considering—i.e., those in which castration is being offered as an alternative to further incarceration. In that case, it might seem that the state could not permissibly provide castration, because medical interventions may only be provided with the valid consent of the recipient (call this 'the consent requirement').

It is, however, worth inquiring why valid consent must be obtained prior to providing castration in these cases. A standard justification for adopting the consent requirement is that satisfying it is necessary for (or at least conducive to) adequately protecting the autonomy of the patient—that is, roughly, the patient's control over his life. Performing medical procedures on competent adults without valid consent is wrong because it seriously threatens their autonomy.

If obtaining valid consent from an individual is important because it helps to protect that person's autonomy, one might question whether valid consent must always be obtained for medical interventions that will increase autonomy. Chemical castration will often do exactly that. Consider this hypothetical case:

> Jeremy, a 55-year-old man, is currently five years into an eight-year sentence handed down for the rape of a 10-year-old boy. He has a history of recurrent sexual abuse of children and has previously been imprisoned twice for this. Each time, following release, he has re-offended. He despises the kind of person he has become, feels some remorse for the victims of his crime, and feels that he has been disowned by his family and society. He experiences his sexual desires as unwanted intrusions on his mental life and is unable to purge inappropriate sexual thoughts from his mind for more than a few minutes. He tries to resist acting on these desires and sometimes succeeds for a period of time, but he inevitably succumbs eventually. Resigned to the fact that the desires are for all practical purposes irresistible, he wants nothing more than to be free from them. He elects to undergo chemical castration as part of a parole agreement and finds that, as a result of this intervention, his inappropriate sexual desires become significantly less frequent and weaker. He discovers that, not only is he now able to resist acting on these desires when they are present, he is also able to pursue various other projects and interests now that his mind is not overwhelmed by sexual thoughts.[6]

[6] For a description and discussion of a somewhat similar real-life case, see Alexander et al. 1993.

Plausibly, Jeremy's sexual desires were themselves impediments to autonomy. If so, then attenuating those desires via chemical castration will tend to increase his autonomy. Thus, it might seem that withholding castration from Jeremy on the grounds that he could not give valid consent would have the paradoxical result of restricting his autonomy. This is paradoxical because the very point of obtaining consent is, arguably, to protect autonomy.

Of course, Jeremy's case is an extreme one. In almost all actual cases, the offender's views and motives will be far messier. But in many messier and less extreme cases too, the desires that lead sex offenders to offend seem aptly construed as impediments to autonomy. Precisely when a desire counts as a constraint on autonomy would be controversial. On a rationalist account of autonomy, all irrational desires restrict one's autonomy. Desires may be said to be irrational when, for example, they are based on logical errors, false beliefs, or a failure to consider relevant information or to vividly imagine relevant outcomes (Brandt 1979: 110–129; Savulescu 1994: 193–202). Other approaches to autonomy stress that, to be autonomous, one's actions must not be driven by desires that one does not reflectively endorse or that are alien to the authentic self (Dworkin 1989; Frankfurt 1971; Schechtman 2004). Desires that motivate sexual offences will often qualify as impediments to autonomy on all of these views. In these cases, it is very plausible that, if chemical castration would attenuate these desires, it would increase autonomy.[7]

In addition to perhaps attenuating autonomy-restricting desires, chemical castration, where undergone as an alternative to further incarceration, may be conducive to an offender's autonomy in another, more obvious way. Pursuant to our second assumption above, agreeing to undergo castration reduces the amount of time that the offender will spend incarcerated compared to the scenario in which castration is not offered; it results in the earlier removal of those constraints on free movement, free association, and free expression that are entailed by incarceration. It is true that similar gains in autonomy could be obtained by simply removing those constraints regardless of whether the offender undergoes castration. However, in many cases there may be sufficient reasons not to do this; for example, the risks to society may be too great. Having justifiably excluded the possibility that an offender will neither be incarcerated

[7] Rosati (1994: 144–145) and Bomann-Larsen (2011) also note that chemical castration and other medical interventions aimed at criminal rehabilitation will often increase autonomy. However, they do not draw out the implications of this point for the question whether consent must be obtained in these cases. Similar ideas have also been discussed in other contexts. Arthur Caplan (2006b) claims that a concern to enhance autonomy may justify forced treatments for drug addicts, while John Stuart Mill (1863:186) maintains that it may be justified to forcibly restrain an individual about to unknowingly expose himself to serious physical danger.

nor castrated, castration will typically be the remaining course of action that is most conducive to the offender's freedom of movement.

Where chemical castration increases future autonomy overall, either by removing internal barriers (such as irrational, inauthentic, compulsive desires) or external ones (such as restrictions on free movement), it might seem counterproductive to withhold chemical castration so as not to violate the consent requirement. One reason to respect that requirement is to protect the autonomy of the individual concerned, but in these cases, offering the intervention seems to be the option most conducive to autonomy.

4.7 Respecting Present Autonomy

At this point it might be objected that, insofar as considerations of autonomy bear on the state's provision of medical interventions, the primary goal should be not to protect or increase the future autonomy of the patient, but to avoid actively decreasing his present autonomy: What is most important is that the state does not actively bring it about that a patient enjoys less autonomy in the present than he would otherwise have enjoyed.[8] (This may be one of the thoughts expressed by the oft-heard admonition to respect the autonomy of patients.)

If this view is correct, then it will usually be unjustified for the state to actively decrease an agent's autonomy now, even if it does so in order to enhance or protect his overall future autonomy. At least, this will be unjustified unless the future gain in autonomy would greatly exceed the present decrease (Caplan 2006b). To illustrate: It is plausible, on some accounts of autonomy, that mild depression constitutes at least a minor impediment to autonomy. On these accounts, treating mild depression will often increase future autonomy. Nevertheless, we would not normally think it permissible for the state to forcibly treat a mildly depressed person, thus actively decreasing his autonomy now, even if we thought this would somewhat increase his autonomy in the future. Similarly, it might be argued that, even where chemical castration would likely increase the future autonomy of a sex offender, the state would not be justified in providing it in coercive contexts, such as those under consideration here. Doing so

[8] Different views would be offered on what constitutes an active decrease or restriction. On one view, an active decrease would be one that is intended rather than merely foreseen. On another, an active decrease would be one that follows from an act rather than an omission.

would involve actively decreasing current autonomy for the sake of a gain in future autonomy.

There are at least two problems with this argument, however. First, the desires that drive many sex offenders may frequently constitute very severe impediments to autonomy. Medical staff involved in treating sex offenders report that they are frequently virtually unable to think about anything but sex because of intrusive sexual desires (Thibaut et al. 2010; P. Cosyns, personal comm.). Assuming those desires are impediments to autonomy, it seems plausible, given their intrusiveness, that they are serious impediments. This suggests that it might be justifiable to actively constrain the present autonomy of such offenders to some degree in order to attenuate these desires in the future. After all, in other situations where autonomy is often thought to be seriously constrained—for example, in severe addiction or substantial cognitive impairment—it is often thought acceptable to tolerate some active reduction in present autonomy in order to enhance future autonomy.

More importantly, though, it is not clear that there is any active reduction in present autonomy in the cases with which we are concerned. Even where chemical castration is offered to an offender in somewhat coercive circumstances, making the offer need not decrease the present autonomy of the offender in the sense of making the offender less autonomous than he would otherwise have been. Indeed, other things being equal, offering the offender a choice between castration and further incarceration rather than merely further incarceration will make him more autonomous right from the moment that castration is offered. It does this by expanding the number of alternatives open to him.

It is true that an offender given the choice between chemical castration and incarceration is still quite heavily constrained—more heavily constrained than a typical patient in non-penal contexts. But the crucial point is that he is less constrained than he would have been had he not been offered castration. This may seem an obvious point, but it is one that has often been missed by those who have raised autonomy-related concerns about chemical castration. (For example, this point is not acknowledged by any of the opponents of chemical castration quoted in the section "Castration, Coercion, and Consent" above.)

4.8 A Clarification

At this point we should make an important clarification. We have suggested that undergoing chemical castration will often increase an offender's future autonomy, in part by attenuating irrational or inauthentic sexual desires. We have also argued that

offering chemical castration to an offender will often increase his present autonomy by expanding the number of options available to him. However, we are not claiming that an offender's autonomy will always be increased in these ways.

Expanding the number of alternatives open to a person does not always increase autonomy. For example, there is a sense in which the heroin addict who has the option of taking a shot of heroin has less autonomy than the heroin addict with no access to the drug. Arguably, offering an alternative for which a person has a powerful and irrational or inauthentic desire reduces autonomy (Radin 1987; Walzer 1983). There may be some cases in which a sex offender's desire to undergo chemical castration, thus avoiding incarceration, is of this sort. For, example, the offender may have an irrational fear of imprisonment (Appel 2012). Or he may accept castration out of a desire to conform to social pressures that he does not in fact endorse—a desire that might, on some views, count as inauthentic.

However, the decision to undergo castration in preference to further incarceration need not always be motivated by irrational or inauthentic desires (Rosati 1994). Many offenders would arrive at the decision to undergo castration on the basis of adequately calm, rational, and authentic consideration of what will give them the best life or best help them to overcome their affliction. Giving such offenders, the option of castration in addition to incarceration would tend to increase their autonomy by increasing the number of alternatives available to them.

Similarly, attenuating deviant sexual desires may not always increase an offender's autonomy. Consider an offender who is proud of his deviant desires, believes that in acting on them he does no wrong, and identifies with those desires wholeheartedly. In most jurisdictions, it is unlikely that this offender would be offered castration. Sex offenders who (a) exhibit no paraphilia, (b) suffer from severe psychiatric comorbidity, or (c) are in denial concerning the wrongness of their actions are typically not considered eligible candidates for chemical castration by experienced psychiatrists (for example, Berlin 2009, 59; Cosyns 1999, 403; Wong 2001). However, if castration were offered and accepted in this sort of case—perhaps in a jurisdiction where no prior psychiatric assessment is required—one might question whether it would enhance the offender's autonomy. Arguably, attenuating the sexual desires of such an individual would not alleviate any constraint on his autonomy, for those desires might seem to be part of the offender's autonomous self, not constraints on it. This would be plausible, for example, on accounts of autonomy according to which what matters for autonomy is that one reflectively endorses one's desires (for example, Frankfurt 1971). It might also be plausible on views according to which one must reflectively endorse one's desires and do so authentically (for example, Dworkin 1989), for it is not clear than anything inauthentic is going on in this offender's endorsement of his deviant sexual desires.

Note, however, that on other accounts of autonomy it is less clear that deviant sexual desires that motivate sexual offending could qualify as part of the autonomous self. For

example, it is not clear that such desires could ever be rational, so it is not clear that they could be part of the autonomous self on a rationalist account of autonomy.

More importantly, even if these desires would qualify as part of the autonomous self in some sex offenders, they would not in others. There are many sex offenders whose sexual desires would qualify as impediments to autonomy on any plausible account of autonomy. For example, there are surely many sex offenders in whom sexual desires are neither rational nor reflectively endorsed. This is enough to sustain our claim that attenuating the sexual desires of sex offenders will often increase their future autonomy.

4.9 Justified Constraints on Autonomy

We have argued that undergoing chemical castration will often increase an offender's overall future autonomy by attenuating internal barriers to autonomy and by allowing for the removal of external ones. We have also argued that offering castration to incarcerated offenders need not actively reduce the offender's present autonomy and indeed will typically increase it. This is because offering chemical castration expands the options open to the offender compared to withholding castration. We can thus expect that there will be many cases in which offering chemical castration does not actively diminish the offender's autonomy in the present (or, for that matter, at any other point) and in fact increases both current and overall future autonomy. In these cases, a concern for the offender's autonomy—the concern that underpins worries about consent—will militate in favour of offering castration, not against it.

It is true, of course, that a sex offender offered the choice between chemical castration and further incarceration enjoys markedly less autonomy than many ordinary patients: He may be incarcerated if he does not agree to and comply with the invention being offered. Presumably, this is what worries opponents of chemical castration. Perhaps their thought is that, even if offering castration increases the present and future autonomy of the sex offender, the offender's autonomy is still unjustifiably constrained. The offender still has less autonomy than comparable non-offenders who choose to undergo similarly invasive interventions and perhaps that is morally problematic.

However, it is doubtful whether offenders presented with the choice between incarceration and chemical castration are unjustifiably constrained. It is often thought that, in committing crimes, offenders have made themselves liable to certain interventions that restrict autonomy, with incarceration being the paradigmatic example. Because they have committed crimes, offenders may justifiably have their

autonomy constrained in order to protect the wider interests of society. By contrast, it is not justifiable to incarcerate an ordinary citizen who has done nothing to make herself liable to such a constraint on autonomy.[9] Suppose that the incarceration of sex offenders can be justified thus. It is then difficult to see how offering to shorten the period of incarceration in return for agreement to undergo chemical castration could fail to be justified. If our argument above is sound, adding this option will often increase the present and future autonomy of the offender without actively decreasing it at any point. If the initial restriction of autonomy brought about through incarceration was itself justified, then it is difficult to see how the lesser (but still significant) restriction on autonomy faced by the offender offered a choice between incarceration and castration could be unjustified. (Though concerns might be raised here about whether it is appropriate, for reasons other than those of autonomy, for the state to offer chemical castration. See, for a discussion, Bomann-Larsen 2011.)

4.10 Unjustified Incarceration Practices

But what if current incarceration practices constitute unjustified restrictions of autonomy? By committing crimes, offenders may have made themselves liable to some kinds of punishment, but that does not exclude the possibility that actual incarceration practices, at least in some jurisdictions, are unjustified. In many jurisdictions, incarcerated offenders are at high risk of becoming victims of rape, assault, or even murder. They frequently have limited access to basic resources such as ordinary medical care (Stern 2006). In some jurisdictions they are subjected to gruelling forced labour and may even have organs removed against their will (Caplan et al. 2011). How do our arguments apply when prevailing incarceration practices are unjustified?

It might be thought that, if prevailing incarceration practices are unjustified, this merely strengthens our argument. We have argued that offering chemical castration as an alternative to further incarceration will often not actively decrease, and will indeed increase, the offender's autonomy.[10] If incarceration, as it is currently done, is an unjustified infringement of autonomy, it might be thought that we have particularly

[9] Incarceration of non-criminals, or equivalent restrictions on freedom of movement, may be justified in some extreme cases, for example, in the context of pandemic control. But the threshold for incarcerating a non-criminal is plausibly much higher than it is for a criminal offender.

[10] For a discussion of circumstances in which offering chemical castration might not increase autonomy, see the section on "Implications" below.

strong reasons to enhance the autonomy of incarcerated sex offenders and thus to offer castration as an alternative.

However, this is too quick. Our autonomy-based argument for the permissibility of offering chemical castration to incarcerated sex offenders relies on taking the initial, autonomy-restricted situation of the sex offenders as a baseline from which gains or losses in autonomy can be measured. It appeals to the thought that offering castration will be justified where it does not actively decrease, and indeed increases, the offender's autonomy from that baseline. But whether the initial autonomy-restricted situation may be taken as a baseline in this way depends on whether it is itself justified. To see this, consider a case in which A kidnaps B's child, and then offers to release the child if B pays A a ransom. (The case is modified from Cohen 1991, especially 276–279.) Clearly, this offer does not decrease, and indeed increases, B's autonomy relative to the baseline in which no such offer is made. However, this does not justify making the offer, since the baseline situation—the one in which B's child is kept hostage—is itself unjustifiably imposed by A. What A should do is remedy that situation; he should release the child without requiring a ransom. Similarly, it might be argued that if current incarceration practices are unjustified, then, rather than offering chemical castration as an alternative, what the state should do is reform those practices. If prevailing incarceration practices are not justified, then it may not be possible to take them as a baseline in the way that is required for our argument to succeed.

4.11 Implications

We have set out an autonomy-based argument in favour of offering chemical castration as an alternative to further incarceration for certain sex offenders. However, we have also noted a possible limit to the argument's scope: It may be unpersuasive in cases where prevailing incarceration practices are unjustified.

What are the implications of our argument? Since autonomy is only one consideration relevant to public policy on chemical castration, one cannot straightforwardly infer from our argument that, all things considered, chemical castration should or even may, in some cases, be offered as an alternative to further incarceration. We believe that our argument strengthens the case for offering chemical castration in some circumstances, but it may be that there are always decisive countervailing reasons against offering castration. For example, it may be that offering chemical castration would diminish the deterrent effect of criminal justice systems, would unduly harm those who undergo the procedure, or would violate norms regarding the proper role of the state in providing medical procedures. It is possible

that one or more of these considerations would invariably outweigh the autonomy-based reasons in favour of offering castration that we have identified.

However, suppose that our argument does justify offering chemical castration. Suppose, that is, that considerations of autonomy count decisively in favour of offering chemical castration in some cases. What can we say about the way in which castration ought to be provided?

Several safeguards ought to be placed on the provision of chemical castration. Some of these would seem necessary even leaving aside considerations of autonomy. For example, it is surely of the utmost importance that a psychiatrist and physician assess whether castration is medically safe and likely to be effective at diminishing deviant sexual desires and behaviour. Similarly, we suggest that chemical castration ought to be accompanied by psychotherapy, since this may substantially increase the effectiveness of the intervention (Thibaut et al. 2010). These safeguards could be justified by a concern for nonmaleficence and effectiveness in crime prevention. However, a concern for autonomy may strengthen the case for such safeguards, since offering ineffective interventions is unlikely to significantly enhance present or future autonomy.

Moreover, our arguments do suggest a possible need for at least one further safeguard. We noted above that our autonomy-based argument for offering chemical castration as an alternative to incarceration might fail in cases where prevailing incarceration practices are themselves unjustified. This suggests the possible need for policies ensuring that incarceration practices are improved before chemical castration is offered as an alternative to them. An interesting question, of course, is precisely how ethically sound our incarceration practices must be in order for it to be permissible to offer castration as an alternative. This is a complex question that we cannot answer here.

4.12 Conclusion

Some have argued that the state should not offer sexual offenders the choice between chemical castration and further incarceration because valid consent cannot be obtained in these circumstances. The consent requirement would not be satisfied.

However, we have argued that the concerns that arguably underpin this objection—concerns about autonomy—will in fact support offering chemical castration in certain cases, even where valid consent could not be obtained. We began by noting that castration may increase the offender's future autonomy by removing internal, psychological barriers to autonomy, such as irresistible sexual urges, and by allowing the offender to be released from prison, thus reducing restrictions on freedom of

movement. We acknowledged that offering castration might still be unjustified if doing so would actively decrease the offender's present autonomy. However, we argued that it need not do so. Indeed, offering castration will often increase the offender's present autonomy by increasing the number of alternatives open to the offender. There will thus be cases in which offering chemical castration increases the overall present and future autonomy of the offender and without actively decreasing it at any point. In these cases, considerations of autonomy would count in favour of offering castration.

We then discussed a practically significant limitation to our argument: It may not be persuasive in cases where prevailing incarceration practices are unjustified. Finally, we discussed some possible implications. We noted that, though our argument strengthens the case for offering chemical castration as an alternative to further incarceration in certain cases, the abovementoned limitation also suggests a possible need to ensure that incarceration practices be reformed before this alternative is offered.

Chapter 5 Increasing Responsibility Over One's Child's Nature. The Case of Preconception Care[1]

Abstract

The preventative paradigm of preconception care is receiving increasing attention, yet its boundaries remain vague in three respects: temporally; agentially; and instrumentally. Crucially, it remains unclear just who is to be considered a 'potential parent,' how soon they should take up preconception responsibilities, and how weighty their responsibilities should be. In this paper, we argue that a normal potential parent of reasonable prudence has a moral duty to adequately optimize the conditions under which she or his reproductive partner will conceive, though a proportionality calculus calls for toleration of several forms of preconception behaviour that are non-ideal from the perspective of reproductive risk. We distinguish between five categories of potential parents to which different duties of preconception care should be ascribed. This framework is advanced to assign preconception care responsibilities with more precision than is often done in the current debate on preconception care. We conclude by applying our theoretical framework to three types of preconception care interventions: consumption of folic acid; keeping one's weight under control; and engaging in preconception genetic screening. Our analysis shows that the literature on preconception care often glosses over crucial distinctions between different types of potential parents and uses a notion of preconception beneficence that may be overly demanding. Nevertheless, preconception moral duties will often be weighty and reluctance to accept such duties on account of the burden they impose do not warrant preconception insouciance. To avoid misplaced responsibility ascriptions in the growing field of preconception care, distinctions must be made between different types of

[1] This chapter is a retitled version of Bonte, Pennings and Sterckx 2014.

potential parents to whom different degrees of preconception responsibility apply. We present such a preliminary framework and bring it to bear on the cases of folic acid consumption, obesity and genetic testing.

5.1 Background

According to the Health Council of The Netherlands, 'preconception care' (henceforth PCC) refers to the large cluster of interventions *"aimed at ensuring that couples who wish to have children start a pregnancy under the best possible conditions."* (Health Council of The Netherlands 2007) Though clearly demarcated at one end by the occurrence of conception, at the other end the boundaries of PCC can be vague in three respects: temporally; agentially; and instrumentally. Temporally, the concept of PCC can be understood to refer to all acts and omissions which might affect the good of future persons, which at the extreme include the acts and omissions of distant ancestors. Agentially, PCC can refer to a broad array of agents from 'potential parents' and all the subcategories thereof (see below) over myriad medical professionals to moral communities and political institutions. Instrumentally, the armoury of PCC can be stretched to include not only specific medical interventions and family planning but all kinds of acts and omissions that are instrumental in creating the best possible (or at least minimally decent) conditions in which to conceive future persons.

In this paper, we start by briefly sketching a variety of PCC measures that contemporary potential parents could engage in, thereby giving an idea of the large number of options currently available to conceive under optimal or minimally decent conditions. Second, we seek to provide a categorization of the ethically relevant types of 'potential parents.' Third, we develop a normative argument about what the ethical principles of beneficence and nonmaleficence demand of potential parents. Finally, we apply the resulting general conception of potential parents' preconception responsibilities to three cases: consumption of folic acid; avoidance of obesity; and undergoing screening for genetic risk.

5.2 Discussion

5.2.1 What Can Potential Parents Do?

The PCC-armoury available today contains a wide range of sufficiently effective, evidence-based interventions for potential parents to merit considering them (Health Council of The Netherlands 2007). For the purposes of this paper, it is sufficient to give an idea of the demands that a fully-fledged PCC regime would put on potential parents. They would be asked to: (1) follow a number of specific dietary prescriptions; (2) take specific supplements; (3) avoid obesity and anorexia; (4) moderate or abstain from use of

alcohol, tobacco, and various other recreational drugs; (5) avoid specific environmental exposures and chemicals; (6) avoid excessive psychological stress; (7) take specific precautionary measures in case of maternal health problems or when taking certain forms of medication prior to conception; (8) avoid consanguinity and (in case of suspected significant risk) undergo genetic screening and, if necessary, take appropriate measures, such as using assisted reproduction techniques, choosing a different reproductive partner or abstaining from reproduction; and last but not least (9) time conception at an 'optimal age' via contraception and other means of family planning.

In regions with well developed health care systems, the incidence of many forms of adverse pregnancy outcomes has decreased dramatically throughout the 20th and early 21st Century. However, as the latest March of Dimes Global Report on Birth Defects shows, the incidence of birth defects remains considerable everywhere (March of Dimes 2006). According to this report, worldwide, approximately 8 million children per year were born with a serious birth defect of genetic or partially genetic origin – i.e. 6 per cent of all births. In France, the country for which the March of Dimes reported the smallest number of birth defects, there were still 39.7 children per 1000 live births born with a serious congenital abnormality. Around the globe, human reproduction remains far from risk-free, and intensified PCC is one promising avenue to reduce human suffering. Moreover, the case for intensified PCC gains all the more urgency if one factors in the number of abortions which often entail psychological damage, physical pain, and also grave health risks to the mother when sub-optimally performed. Many of these risks could have been avoided by better access to and use of contraceptives or by the adoption of additional PCC measures to improve the timing of the pregnancy and the viability and health of the child (Guttmacher Institute 2009).

5.2.2 Who Is a 'Potential Parent'?

A contemporary potential parent may be confronted with her or his (alleged) PCC responsibilities by at least three groups:

1. public health and child care providers who seek to enlist potential parents in their respective projects, as well as personal health care providers who provide directive counselling;
2. private for-profit providers of PCC interventions, such as direct-to-consumer genetic screening and counselling companies who have a commercial interest in creating demand for their services; and
3. particular moral communities (anti-abortion activists, for example) who hold moral views that prescribe duties of PCC to potential parents.

However, it is often unclear exactly who these groups are targeting. At times, only prospective parents are being addressed (for instance in the above characterization of

PCC by the Health Council of The Netherlands). At other times, the category of addressees is expanded to include everyone who is (presumably) fertile or is nearing fertility (see for example the recent proposal by the UK Human Genetics Commission (2011) to offer genetic screening during the final years of secondary education). This shows that many different types of 'potential parent' can be identified to which very different degrees of responsibility might apply. In this section, we outline a categorization of potential parents in which a balance has been struck between precision and practicability. Our categorization roughly follows the lines of probability and intention to conceive, where 'probability' includes (presumed) capacity as well as behaviour. Despite first appearances, it does not necessarily reflect a linear temporal order. We distinguish the following five categories:

1. Prepubertals nearing fertility (no capacity, no behaviour, no intention).
2. Fertile persons who are not sexually active (or only non-coitally) (capacity, no behaviour, no intention).
3. Sexually active persons with no intention to conceive in the foreseeable future (capacity, behaviour, no intention). This category also includes persons who are duly compliant in their use of contraceptives, but whose contraceptives are not fully reliable.
4. Sexually active persons with an unclear intention, who wilfully abstain from contraception and leave it to chance/nature whether conception will occur or not (capacity, behaviour, intention unclear).
5. Prospective parents: fertile, sexually active persons who intend to conceive in the foreseeable future (capacity, behaviour, intention). This category also includes persons using assisted reproductive technologies.

Bearing these distinctive categories of potential parents in mind will help to avoid making category mistakes such as lumping together too many different types of potential parents when ascribing preconception duties of care to them and expecting them to meet those duties (possibly backed up with sanctions if they do not). However, in some forms of PCC awareness-raising, there may be good reasons to lump all potential parents together. For instance, one powerful argument for a non-stop stance of PCC prudence (for all potential parents) is the high incidence of unintended and ill-planned pregnancies. On some estimates, unintended pregnancies alone amount to 41% of pregnancies worldwide and remain prevalent in developed regions (Guttmacher Institute 2009). Indeed, in the categorization outline above, unplanned or ill-planned conception might occur in all groups who have the capacity to conceive and are sexually active.

5.2.3 What Should Potential Parents Do?

The question arises, however, as to what constitutes 'good planning,' and to what extent and on which grounds this can be morally demanded of potential parents. One possible ground is a duty of beneficence, i.e. a duty to advance the good (of others), often by active intervention (Beauchamp and Childress 2012). Such a duty can be said to hold if not generally, then at least for persons with specific relational roles, such as a parent towards his or her (future) child. Referring to the work of Derek Parfit, Savulescu and Kahane observe that *"in selecting a more advantaged child we are also bringing a different person into existence."* This poses a 'non-identity problem' as to *"what might ground a moral obligation or reason to select such a child."* They go on to argue that one can nevertheless maintain the case for a moral obligation of procreative beneficence, for instance on *impersonal* grounds. As such, the reason to be beneficent *"is that selecting the most advantaged child would make the outcome better, even if it is not better for the child created"* (Savulescu and Kahane 2009: 277). To illustrate with an abstracted clear-cut case with all other things being equal, if one can either put a 'bundle of joy' or a 'bundle of suffering' on the planet, there would be a strong moral obligation to conceive a joyous rather than a tormented child (idem: 279).

Another possible ground is a duty of nonmaleficence, a duty not to harm others, often by passive abstention (Beauchamp and Childress 2012). Nonmaleficence will often be less demanding than beneficence, but on the other hand it may be demanded of more persons, for instance universally and not only of those standing in some specific relational role. If some potential parent would only have to be nonmaleficent in relation to her potential future child, more leeway should be given to her own right to autonomy: she should then be free to live her life as she sees fit without being duty-bound to procure the good (for someone else). She should only refrain from harming others.

5.2.3.1 Preconception Beneficence - Above All, Do Good Towards One's Potential Child?

Many contemporary ethicists would argue that the prime focus of reproductive decision making should be the wellbeing of the resultant child. To engage in PCC from the motive of unburdening or strengthening society or of satisfying the parents' instrumental plans with regard to the child would be open to the same criticisms that have profoundly discredited the eugenic reproductive schemes prevalent from the end of the 19th Century up to the late mid-20th Century (Kevles 1995, MacKellar 2011).

Having regard to prioritizing the child's wellbeing, Savulescu and Kahane defend the following 'principle of procreative beneficence' (PB, first coined in Savulescu 2001):

> If couples (or single reproducers) have decided to have a child, and selection is possible, then they have a significant moral reason to select the child, of the possible children they could have, whose life can be expected, in light of the relevant available information, to go best or at least not worse than any of the others (Savulescu and Kahane 2009: 274).

Although the use of the phrase 'procreative beneficence' seems to suggest a principle relevant to all procreative issues, Savulescu and Kahane formulate the principle in a highly targeted way. For instance, they note that: *"PB is silent on a number of further questions in procreative ethics [. For instance it] assumes that a decision to have a child has been taken."* (idem: 274, footnote 3). Their discussion is also focused on settings involving selection, in which one can make a choice between different gametes or embryos. Within the bounds of these constraints, Savulescu and Kahane have made a forceful argument that PB operates as a primary moral principle which will often override other principles in play such as procreative autonomy. In brief, they argue that procreative autonomy allows for parents to intentionally create a child who, for example, *"will live a brief life of misery and torment"* (idem: 279) even when they could have alternatively created a child in good health. Savulescu and Kahane find such parental autonomy *morally* unacceptable as well as in violation of much common sense morality. That said, they do allow for parental autonomy to possibly remain a primary *legal* right. Moreover, they hold that, other things being equal, PB entails maximizing parental commitment to provide the best chance for the best possible life. Less far-reaching aims such as a 'life worth living' or a 'disease and handicap-free life' will not do.

In this chapter, we will not contest Savulescu and Kahane's formulation of the principle, nor their application of it. Rather, we will take their principle as-is but remove the restriction of its application to prospective parents so as to find out what it would imply if applied in the preceding domains of preconception care. Rather than taking on board the additional question of enhancement as Savulescu and Kahane do, in order to retain focus, in this particular chapter we will not contest the conventional ethico-medical standard that the best condition to provide for future children does not go beyond a 'normal' state of disease- and handicap-free existence. As we do not provide a justification for a principle of PB, those who deny the existence of such a principle may also find our extension of that principle unconvincing. Alternatively, our extension of the PB principle may make the account offered by Savulescu and Kahane more compelling for some.

Interestingly, preconception care advocacy often (implicitly) appeals to PB, and this may corroborate Savulescu and Kahane's assertion that PB has substantial commonsensical appeal. Nevertheless, we will argue that, in the domain of PCC, PB runs up against formidable competing concerns. This may be sufficient to cast significant doubt on the thesis that PB can play the role of 'first principle' in PCC. If this holds,

contemporary PCC advocacy may need to fundamentally rethink certain awareness-raising campaigns and PCC counsellors their counselling practice.

To apply Savulescu and Kahane's PB in the field of PCC, it would need to be rephrased along the following lines to constitute a 'principle of preconception beneficence:'

> If one can take/refrain from action prior to conception to, in light of the relevant available information, significantly increase the likelihood that if one conceives it will be of a child whose life can be expected to go best or at least not worse than the lives of any of the other children one may otherwise conceive, then one has a significant moral reason to take/refrain from such action.

If this would be the moral standard prescribed for all potential parents, they would have to face up to a long and taxing PCC checklist that will only lengthen as science and technology increase the range of preconception options that may serve to optimize reproductive outcomes. Moreover, persons at an ever-widening distance (in time or in intent) from conception may find themselves being drawn into the expanding sphere of PCC responsibility. Given that for instance the California Preconception Initiative advocates that women be made aware of PCC at every medical visit throughout the health care system, following the dictum *"every woman, every time"* (Moos 2010), they might have to answer at every turn why they are not doing all they can, as soon as they can, to ensure that, should there be any future pregnancy, it will be a *"pregnancy under the best possible conditions"* (Health Council of The Netherlands 2007).

The practical burden of long-term compliance with a complex set of prescriptions to ensure a good that may be very distant and/or improbable, is not to be underestimated. As Singh and colleagues write on the specific topic of contraceptive use:

> By the time she is in her mid-40s, a woman with two children will have spent, on average, only five years trying to become pregnant, actually being pregnant and not being at risk for another pregnancy for a few months following a birth. To successfully avoid becoming pregnant before, after or between those two births, either she will have had to refrain from having sex, or she or her partner will have had to practice contraception effectively for an average of about 25 years—a hard standard of behaviour to live up to, even for the most disciplined and highly motivated individuals (Guttmacher Institute 2009).

Although the use of contraceptives has by now (in the developed world at least) become a more or less accepted responsibility for the majority of sexually active persons, for all its blessings the effort of maintaining adequate compliance remains a substantial burden. To this burden, the PCC armoury invites us to add staying informed and up-to-date about the state-of-the-PCC-art, maintaining dietary and physical exercise routines, avoiding certain environments and toxins, undertaking medical screenings and check-ups, securing adequate rearing-resources (not only financial and

material but also psychological, pedagogical, social and cultural) prior to conception, etc.

The mere (potential) availability of some effective PCC intervention is sufficient to impel a person to justify (if not to others, then at least to herself) why she would not make use of it. This can be experienced as a 'technological imperative,' or more generally, as a 'capability imperative:' as soon as some newfound mode of intervention is made available, one's sphere of possible agency is expanded, and one inescapably finds oneself at liberty to influence states of affairs where one used to be factually impotent to do so. Any newfound power thus puts us at liberty to either use or not use it, thereby literally forcing a new responsibility on us.

As PCC advocates now call for pervasive and perpetual awareness-raising programs aimed at all potential parents (Moos 2010), the risk arises that an increasing number of people become susceptible to criticism of being or having been a 'failing potential parent.' Moreover, as the armoury of PCC and its availability expand, people become susceptible to such criticism to an increasing degree.

From the vantage point of preventative health care, there are good reasons to start assuming responsibilities of PCC as soon as one nears reproductive age. For instance, many of the effective PCC interventions are lifestyle and work environment changes, and such changes are only likely to have sufficient effect by the time conception occurs if they take place well before conception (Health Council of The Netherlands 2007). In a similar vein, lifestyle habits engaged in during one's twenties are likely to become entrenched ways of living for the rest of one's life, and altering one's habits in later years is likely to require greater effort. Thus, as many may fail to muster sufficient intrinsic motivation to develop healthy habits and make healthy choices because the (moral) gratification is too uncertain and/or too remote, they may need to be prodded and incentivized by others in sufficiently early, constant and intensive ways.

A telling example of such a hands-on incentivizing campaign is the 'Don't U Dare' PCC promotional video of the March of Dimes foundation (March of Dimes 2008). In this promotional video in the scripted reality format, a PCC coach closely monitors a 'merely fertile' woman (category 3) and (cheerily) chides her for every suboptimal move she makes. Despite its superficial cheerfulness, this awareness-raising material seems saturated in an emotionally manipulative discourse of shaming and blaming and may therefore amount to a form of PCC counselling that is highly directive. Much the same seems to hold for the nation-wide 'Show Your Love' campaign of the US Preconception Health and Health Care Initiative and the California Preconception Initiative, which suggests to potential parents that if one does not engage in PCC, one may be lacking basic parental love (California Preconception Initiative 2013).

In a more comprehensive analysis of PCC, as opposed to the preliminary assessment we are offering here, one should also scrutinize the extent to which today's PCC awareness-raising campaigns may be (co-opted as) modern-day heirs to entrenched

community traditions in which a girl's identity is narrowly scripted as 'future mother' – a script of social expectation and obligation that can be enforced by playing to fears that if a girl or woman engages in athletic pursuits, takes on stressful studies or employment, for example, she might be endangering her central *raison d'être:* that of being a responsible 'future mother.' To be fair, men are also being asked to engage in certain forms of PCC to optimize semen quality or to aid and support (and, perhaps, to coax and keep compliant) their female reproductive partner (Frey et al. 2008), yet overall their potential PCC responsibilities pale in comparison to those ascribed to women. PCC advocate Merry-K. Moos has engaged with the worry that PCC might *"frame women as nothing more than vessels for growing healthy offspring"* (Moos 2010), and largely dismisses it. Commentators such as Rebecca Kukla, on the other hand, discuss the increasing and unreasonable burdens women are expected to accept on their way to becoming a mother (Kukla 2005). In a similar vein, PCC is at risk of being co-opted in dubious practices of *"hyper-parenting,"* where competitive, perfectionist and over-anxious parents seek to control and plan ahead the lives of their (future) children to an ever increasing extent (Rosenfeld and Weis 2001).

Messages entailing a substantial responsibility expansion for potential parents can also come from the very different corner of for-profit health care providers. For-profit entrepreneurs have a marked commercial interest in inflating notions of individual responsibility and fanning the flames of hyper-parenting: the more that potential parents believe themselves to be inadequate, and the more that people consider themselves to be potential parents, the greater the demand for the services of such entrepreneurs. In the world of direct-to-consumer genetic testing companies such as Counsyl and 23andMe, marketing techniques of commercial demand creation in the guise of public-spirited 'awareness-raising' seem to be standard fare (Kutz 2010; Borry et al. 2011; Howard and Borry 2012).

Thus, for example, Counsyl, the for-profit provider of a highly media-hyped 'Universal Test' for genetic risk, highlights on its website the following quote of Professor Patrizio, director of the Yale Fertility Centre: *"Every adult of reproductive age should consider the Counsyl test before pregnancy."* As Counsyl-CEO Srinivasan likes to envision it, his company's test should not only be 'universal' in its testing capacity but also in its use: *"one of our goals is to make this like the home pregnancy test"* (Pollack 2010). Occasionally such messages are taken to hyperbolic extremes. For instance, the director of the for-profit Centre for Surrogate Parenting and leading US radio host Bill Handel has opined that conceiving of a child via coitus has today become offensively irresponsible: *"I always get astounded and offended when people actually have sex to have kids. I don't understand that. They shouldn't do that. You can always use some high-tech form of reproduction"* (Handel in Black and Sandig 2005).

Not only do such for-profit actors often severely overstate the moral obligation of potential parents to become PCC customers, they also tend to severely overstate the

effectiveness of the services they market. Without proper policies to mitigate misinformation and manipulative 'demand creation,' the general public will often not be able to distinguish between bona fide and not-so-bona fide players in the PCC field (Kutz 2010). As a result, they are at risk of lumping all these responsibilizing messages together, thus creating a sense of PCC responsibility that is needlessly cumbersome.

Nevertheless, though Handel's suggestion is grossly excessive given today's state of the art, Savulescu and Kahane have argued that *"[a]s means of selection become safer and our ability to use them to select non-disease characteristics increases, we believe that PB [procreative beneficence] will require most reproducers to select the most advantaged child unless doing so is predicted to lead to a very significant loss of well-being to existing people"* (Savulescu and Kahane 2009: 281). This implies that, if assisted reproductive technologies would ever turn into full-blooded alternatives that are significantly less risky than natural reproduction, anyone who has access to such technologies would have significant moral reason to relinquish natural procreation altogether in order to reproduce in the safer, artificial way. Whether or not one objects to this specific example, the general point remains that simply by upholding the very same moral standard that governs today's use of PCC, potential parents may find themselves morally obliged to engage in quite unsettling acts and omissions as PCC capabilities expand.

5.2.3.2 Preconception Nonmaleficence and the Autonomy of Potential Parents

We now turn to some arguments which seem to provide legitimate, principled objections to the primacy of preconception beneficence. If these objections hold, they would relax the taxing demands of preconception beneficence discussed earlier.

Insofar as a 'potential parent' falls beneath certain thresholds of intent to cause conception and/or probability to cause conception, it becomes problematic if not outright incoherent to expect such a person to take up certain presumed role responsibilities of a parent. Since she would not fit the description of a parent or procreator, it would make little sense to ask her to fulfil particular parental or procreative duties. Indeed, to the extent that potential parents would not be parents, other principles can assert themselves, most importantly the principle of individual autonomy. In principle, such 'non-parents' should be free to lead their lives without being excessively constrained by concerns about the wellbeing of unintended and merely potential children.

This is not to say, of course, that non-parents would thereby be relieved of the general responsibility to avoid inflicting harm upon others, a duty that stems from the general principle of nonmaleficence (Beauchamp and Childress 2012). This universal duty to do no harm, which is codified in some form in virtually all established moral theories as well as in civil law, applies to non-parents and parents alike. However, this universal duty of nonmaleficence obviously needs curbing, lest one is (absurdly) held

responsible for all possible harm (no matter how minute) to anyone (no matter how remote). In order to properly apply the principle of nonmaleficence and to discern whether the corresponding duty is at play in a given situation, further stock concepts from moral philosophy and law need to be brought in (Browne 2001).

For our purposes, it is sufficient to invoke the concepts of reasonable foreseeability, adequate control, adequately proximate causation, proportionality, and reasonable prudence:

1. Foreseeability (requiring adequate cognizance by the wrongdoer of the consequences of her act or omission);
2. Control (requiring adequate control by the wrongdoer over the events in which she was implicated);
3. Proximate causation (requiring that the act or omission of the wrongdoer was an adequately proximate cause of the adverse turn of events);
4. Proportionality (requiring that the benefits of the intervention are in proportion to the effort that must be invested to avoid the wrong). We will consider proportionality in relation to the standard of a 'normal person of reasonable prudence:' preconception acts and abstentions that are disproportionately burdensome to such a person will not be morally required. Normally proportionality is calculated as follows: probability of an affliction in a future child x gravity of the affliction/cost of precaution. With regard to PCC, however, this calculus – already difficult to apply in a sufficiently precise and methodologically satisfactory way – is further complicated by the fact that the calculus must be made prior to conception, which can add great uncertainty because one has to factor in the probability of conception, which is highly unclear in most cases. Thus, the calculus to be applied with regard to PCC takes the following form: probability of conception x probability of affliction x gravity of affliction/cost of precaution. This added complexity alone has caused certain judges to declare preconception torts inadmissible (Browne 2001).

5.3 Applications: Folic Acid, Obesity, Genetic Testing

In order to more precisely assess the responsibilities of potential parents in specific cases of PCC, the general conception of preconception responsibility outlined in the previous section ('Principles') needs to be applied to specific PCC interventions and specific types of potential parents. In this section we will provide three brief casuistic illustrations to put our general conception of preconception responsibility to work: folic

acid, obesity, and genetic screening. We will highlight where and why preconception responsibilities significantly increase or decrease between different types of potential parents.

5.3.1 Folic acid

The potential suffering brought on by neural tube defects such as the gravely adverse condition of spina bifida is significant and the chance of such defects occurring is 1/1000 for American procreators (National Institutes of Health of The United States 2012). A strong evidence base has been established, indicating that the consumption of folic acid supplements, for a period of about three months prior to conception, reduces by two thirds the risk of neural tube defects (Health Council of The Netherlands 2007).

Given the framework of preconception responsibility outlined above, does this make it morally required for any normal, reasonably prudent potential parent to begin taking folic acid in due time?

Cognizance. One needs to be aware of the importance and possibility of achieving an optimal folic acid intake in order to be able to do so in a timely fashion. This requires education via awareness-raising campaigns, timely advice from GPs, obstetricians, etc. Unfortunately, even in countries such as The Netherlands, where efforts at widespread informational campaigns on folic acid have been made, many women remain unaware about the existence and importance of folic acid (Health Council of The Netherlands: 2007). As things stand, this can hardly be blamed on a failure of these women to have solicited proper and timely advice on preconception care. This may surely change, however, once folic acid intake becomes a standard fixture within public health education.

Control. Provided that one has ready access to folic acid (financial, logistic and otherwise; conditions that may again not be met in many situations), the intake of this supplement is quite feasible and does not seem to be very demanding, neither as regards expenditure of money, time, or effort, nor endurance of side-effects (optimizing folic acid levels does not produce any negative side-effects for the mother-to-be).

Causation. Should one forego folic acid intake, this omission would become an important co-cause of (the higher probability of) eventual neural tube defects in future offspring.

Proportionality. A normal prospective mother of reasonable prudence can reasonably be expected to shoulder the very minor burden of taking folic acid tablets, and reproductive partners can equally be expected to support and stimulate their child-bearing reproductive partners to do so (Frey et al. 2008). Even in the presence of multiple other demands and given the daily hustle and bustle of everyday life which can

complicate proper compliance with prescribed medical routines, this does not impose an unreasonable or disproportionate burden.

Beneficence, non-maleficence and autonomy. Given that prospective parents are already explicitly assuming a parental role identity, they have special duties of procreative beneficence towards their future child and should first optimize their folic acid levels. Potential parents of category 4 – sexually active but leaving possible conception up to chance – also have an elevated moral duty. They should either start using contraceptives or else optimize their folic acid levels. Concerning potential parents who use contraception, some PCC advocates argue that the packages of birth control pills should advise that upon stopping with birth control pills in order to try to conceive, one should immediately switch to folic acid supplements (Health Council of The Netherlands 2007). On our analysis, such initiatives are warranted. Moreover, this advice could be broadened to include the information that, given the high incidence rates of unplanned pregnancy, any (presumably) fertile and sexually active woman (i.e. not only those in category 5 but also those in categories 4 and 3) should consider optimizing her folic acid level to decrease the risk of neural tube defects. Persons in the other categories are so far removed from a potential conception that they have no duty of preconception beneficence to take folic acid.

5.3.2 Obesity

The potential adverse pregnancy outcomes brought on by conception and gestation in an overweight body can be severe (increasingly so as one moves towards actual (morbid) obesity). Paraphrasing the synopsis of several systematic reviews provided by the Health Council of The Netherlands, compared to women of normal weight (BMI between 20 and 25), for obese women (BMI 30<) the risk of diabetes is increased by a factor of 1.4 to 20, the risk of hypertension by 2.2 to 21.4, and the risk of pre-eclampsia by 1.2 to 9.7. These factors increase the risk of harming the foetus, making the incidence of neural tube defects rise by a factor of 1.5 to 3.0 in children of obese mothers and the risk of stillbirth by a factor of 2.5 to 3.4. These risks are also elevated, albeit to a lesser degree, for overweight persons (BMI 25–30). A clear solution to reduce these risks would be the timely optimization of one's body weight.

Given the framework of preconception responsibility outlined above, should a normal, reasonably prudent potential parent normalize her body weight before attempting pregnancy or if there is a risk of an unplanned pregnancy?

Cognizance. In contrast to public knowledge on folic acid, it is widely known that abnormally high body weight is related to a host of health problems. However, the link between body weight and health problems of potential future offspring is likely to be substantially less well-known. For instance, without scientific knowledge on the issue,

some might even speculate that being overweight may provide a better, more nurturing conceptive and gestational environment.

Control. Reducing and/or substantially changing the nature of one's food intake can be very demanding to many people, for reasons of individual psychology, group psychology, (financial) access to healthy food, etc. It will often require a trying expenditure of time, effort and possibly money. In some cases, problematic body weight is not (or not primarily) the result of one's behaviour, but a largely inescapable outcome of a genetic constitution, a medical condition, or a medication regime. Case by case, and risk group by risk group, these factors should be taken into account in the calculus of personal responsibility. That said, many overweight persons are in a position to optimize their body weight.

Causation. Being overweight prior to conception can causally contribute to several forms of adverse pregnancy outcomes. To the extent that it is the overweight persons' acts and/or omissions that causally brought about their risk-increasing body weight, they open themselves up to being held morally accountable for exposing their potential child to the attendant risks. However, considerations of proportionality might substantially relax, if not absolve them of, such moral accountability.

Proportionality. For several reasons, it would be problematic to make the moral demand on overweight potential parents to suspend all attempts at conception until they have successfully optimized their weight. For instance, the weight-optimizing enterprise might take so much time for certain persons that, by the time they reach an optimal weight, other obstacles have come into play (for example, maternal age over 35, loss of a willing reproductive partner, etc.). Moreover, persons burdened by a relative lack of financial resources or by certain genetic or medical conditions may find it virtually impossible to optimize their body weight, or doing so may be disproportionally difficult for them. Therefore, it would be problematic to demand compliance. Rather, only a proportionate, sustained effort to optimize one's weight can reasonably be demanded (Dondorp et al. 2010). Although fertile persons with weight problems could disregard all directive messages and simply go ahead and conceive, that would constitute a (legally permissible yet) morally tainted exercise of their reproductive liberty.

Beneficence, non-maleficence and autonomy. Prospective parents, already having a future child in view, would also need to invest such effort out of their duty of procreative beneficence. For potential parents of category 4, who are leaving it up to chance if they get pregnant/impregnate, a heightened moral imperative to keep their body weight under control also holds. Considering the fact that tackling overweight will often be a much more demanding task than taking folic acid, other types of potential parents – who have only a lesser or no duty of beneficence – should only be non-directively informed about the risks to future children of preconception overweight, for, in view of the demandingness, the proportionality calculus would allow more

leeway to the potential parents' lifestyle choices or habits over their duty of non-maleficence.

5.3.3 Genetic screening

A great number of diseases and handicaps are rooted in one's genetic make-up. Increasingly, potential parents can find out whether they are carriers of genetic factors that significantly increase the probability of adverse pregnancy outcomes, most commonly for autosomal dominant or autosomal recessive disorders, for which there is, respectively, a ½ or ¼ chance of producing the disorder in one's offspring.

Given the framework of preconception responsibility outlined above, should any normal, reasonably prudent potential parent undergo genetic screening before attempting to conceive?

Cognizance. Basic knowledge about genetic risks clearly remains an issue about which more public health education is needed (Haga et al. 2013). The same holds a fortiori for the additional awareness that genetic screening prior to conception is available and might be helpful. However, public knowledge levels on these issues seem likely to increase given the emergence of public campaigns on PCC and on genetic literacy, as well as the publicity campaigns by commercial (quasi-)direct-to-consumer genetic testing companies.

Control. The Health Council of The Netherlands argues that *"the scenario must be avoided in which a decision not to make use of a service such as preconceptual carrier screening is regarded as irresponsible,"* based in part on the consideration that one's genetic constitution is not a 'controllable' factor in the sense that for instance one's overweight or one's folic acid level are 'controllable' (Health Council of The Netherlands 2007). However, even though one cannot exercise any meaningful control over one's genetic constitution, in many cases one *can* exercise meaningful control over how one will expose one's future offspring to risks stemming from it.

Causation. Though one is not oneself the cause of one's genetic constitution and thus must surely not be blamed or in any way judged for it, one can become the cause of an adverse condition in one's offspring due to one's unwillingness to undertake genetic screening.

Proportionality. How should we map the benefit/burden calculus for genetic screening? On the benefit side, the amount of suffering one can avoid is significant, as shown for instance by the Cypriot campaign against beta-thalassemia (Cowan 2009). Equally, the degree of certainty that one will effectively avoid significant suffering can often be high, for instance when one has been diagnosed with a dominant or recessive autosomal disorder, or when one is a member of a population with an elevated risk, such as the Dutch where 1 in 30 persons is a carrier of cystic fibrosis (Health Council of

The Netherlands 2007). On the burden side, undergoing genetic carrier screening demands very little of a potential parent: providing a blood or sputum sample or even only a buccal swab. The burdens rather lie in handling knowledge regarding one's genetic status (which may reveal much more than just the risks for one's future offspring, namely risks to oneself and to one's genetic relatives). To avoid such burdens, one may want to invoke a 'right not to know.' Another set of substantial burdens pertains to the affliction-avoiding interventions one may have to engage in when a substantial genetic risk has been found (for example, the strains of undergoing IVF/PGD cycles). Moreover, in regions without publicly subsidized health care for these purposes, both the testing itself and the ensuing interventions can be extremely costly for potential parents. Then again, when one takes into account the potentially astronomical costs to a person of living with a severe affliction, plus the costs of (lifelong) care for severely afflicted persons, even high costs of tests and interventions may nonetheless be relatively proportionate. A normal and reasonably prudent prospective parent (i.e. category 5), who has good reason to assume that he/she belongs to a group with an elevated genetic risk of severely afflicting future offspring, would be acting morally irresponsibly if he/she knowingly foregoes genetic carrier screening.

Beneficence, non-maleficence and autonomy. In Cyprus, persons who want to marry before the Cypriot Orthodox Church (and who can be reasonably expected to try to bear children) are obliged to first have their carrier status for beta-thalassemia checked (Cowan 2009). On our analysis, such a scheme seems to be based on a proper conception of preconception beneficence. All prospective parents (i.e. those in category 5) whose genetic predicament is known to be analogous to that of the Cypriots can reasonably be expected to engage in genetic screening for their respective risk factors. In another scheme proposed by the UK Human Genetics Commission, population-wide genetic screening for a variety of genetic risks would be organized during the final years of the secondary education system (Human Genetics Commission 2011). According to this proposal, adolescents should be merely informed in an entirely non-directive way of the possibility of being screened and about what screening can achieve. One might argue that a large-scale implementation of genetic screening would inadvertently give rise to some implicit directivity. Yet on our analysis, within proper bounds, such awareness-raising concerning the preconception responsibilities of potential parents in categories 1, 2, 3, and certainly 4, may be justified. For instance, to those in categories 1 and 2, one could already mention the moral importance of avoiding severe afflictions in one's future children, and leave it to their own discretion to think about the (dis)proportionality of preemptively investigating their genetic risk factors. For potential parents in category 3 and certainly to those in category 4, one could both heighten awareness of the likelihood of unplanned pregnancy and signal the importance (made more acute in view of their coital activity) of getting to know their genetic risk profiles. A similar conclusion can be reached starting from a discussion of

reproductive autonomy (De Wert et al. 2012). It must be noted, however, that none of this would compromise the right of a potential parent to conscientiously object, their right to exercise the right not to know, or their right to reproduce.

5.4 Conclusion

We began this paper by briefly sketching the state of the art and the state of the debate regarding PCC. We explained how the PCC paradigm can enlist all sorts of 'potential parents' in its preventative project by imposing some form of preconception responsibility upon all of them. This identification of large swathes of society as some kind of potential parent seems to entail a real risk of a 'responsibility explosion.' If one maps these categories out on the lifespan of a single person, most people would have to assume at least some minimal form of PCC responsibility during their entire period of fertility. This situation seems to be further aggravated by the increasing number of PCC measures that are becoming available and by the 'capability imperative' they inevitably bring about. Given these substantial burdens, we have attempted to develop a preliminary framework of preconception responsibility that identifies preconception responsibilities in a sufficiently specific way. To that end, we have applied a theory of moral responsibility, involving principles of (preconception) beneficence, (preconception) non-maleficence and individual autonomy, to the cases of folic acid, obesity and genetic screening.

Our discussion of PCC has been primarily restricted to potential parents. Further work, seeking to develop a comprehensive rather than a preliminary ethical framing of PCC such as the one offered here, needs to take into account much broader socio-political realities and normative frameworks. Indeed, an in-depth analysis would also need to investigate the PCC responsibilities of medical professionals, health care institutions, the potential parent's government, employer, and cultural, social and family communities. Our focus on potential parents is by no means intended to detract from the responsibilities of the other actors and institutions in the field of PCC.

We have argued that prospective parents as well as several other categories of potential parents have at least a minimal moral duty to *sufficiently try to optimize* the circumstances of conception. Although we have sought to apply only a 'minimal' standard (i.e. one that prescribes a 'moral minimum'), circumstances may conspire to make the commitment to only 'minimal' duties of PCC overly burdensome nonetheless. That would be a sufficient reason to reject even some of such 'minimal' duties. It would certainly be absurd to argue that an agent X has a duty Y, if X is irremediably incapable

of meeting duty Y. Similarly, it would be unreasonable to expect from potential parents that they perform supererogatory acts of PCC.

There are many cases in which realizing one's basic moral duties in no more than a minimally sufficient way may in practice require sustained attentiveness over a long period of time, as well as intensive effort and substantial sacrifice of self-centred activity. The current armoury of PCC has not yet amassed to such a dramatic extent that the default, responsible way to procreate would require the use of artificial reproductive technologies as Bill Handel would have it – indeed it seems highly doubtful that such a scenario would ever come about. Nevertheless, it will probably already be hard for many people today to adequately discharge themselves of the minimal PCC duties advocated here. The strains involved will only increase as new effective means of PCC interventions are made available. The strains themselves, however, should not be invoked as an argument against PCC, as long as a normal potential parent of reasonable prudence can be expected to bear such strains in order to reduce the likelihood of serious adverse pregnancy outcomes.

General Conclusion. Feeling Circular Freedom and Purposeless Nature in One's Own Body

Confusion and art – I'm nothing but heart.

Low, "Nothing But Heart" (2011)

In *Shaping Our Selves*, Erik Parens notes how *"[f]or most of human history, human beings did not have to justify their own way of being."* (Parens 2014: Loc. 678) What discharged us from the labours of self-justification were impotence (people simply had no more than a few options to change themselves); inattention and ignorance (people simply did not register any need to justify their way of being); and imposition (people were impressed with beliefs that their given way of being was prescribed to them from on high): *"roles were ordained by God or Fate or Nature. We children of modernity, however, tend to think that we have chosen our own ways of being, and thus we feel the burden of justifying our choice."* (idem)

We feel this burden of self-justification because our potency for self-shaping and our sense of license have increased significantly. This increased potency for self-shaping also includes possibilities for *physical* self-shaping, which has been the focus of this dissertation. These PSS techniques render volatile and voluntary one's very nature. This can be very troubling, given that one's nature is normally experienced as largely fixed and fated, and that there can be good reason to *want* to have a fixed and fated nature. As I have showed, in the contents and constraints of their default nature, many hope to find a sense of given purpose – and an escape from blame and freedom.

In Chapter 2, I provided a historical and taxonomical overview of the many ways PSS has been practiced and envisioned up to the present day. I contrasted a 'pre-modern' to a 'modern' experience of PSS based on three evolutions: (1) from the practice of PSS in only some very limited spheres of life, in relatively unprofound and/or imprecise ways, to the confrontation with a modern array of PSS techniques that increase the breadth, profundity and precision of one's protean potential so that certain psychological thresholds are overstepped, making people feel deeply at liberty over their own

embodiment; (2) from the practice of PSS in well-sedimented, traditionalized ways to the development of techno-industrial society with its constant research and development of new modes of being, including new modes of embodiment. This provides a further deep volatilization of whatever way of life (and mode of embodiment) one has at a given time, creates constant challenges of adaptation ('future shock') and breeds chronic apprehension about how 'all that is solid melts into air;' (3) from moral cultures in which individuals were 'lived by' their communities, gods and institutions to a moral culture in which individuals had to settle on a sense of identity and purpose by their own lights: a culture that is demandlessly 'liberal,' 'hedonistic' and lax or demandingly puritan and discomforting, depending on how you look at it. Charles Taylor has described this modern shift in moral culture as an 'inward turn,' in which people engaged in introspection and seek inspiration in their 'authentic self' and their 'given nature' in the hope of living a worthwhile life that way.

I discussed a particular instance of the 'inward turn' of modernity in Chapter 3, namely the impressive existential and ethical attachments many feel towards 'natural talent.' More specifically, I explored how attachments to natural talent operate in a particular setting, namely the moral theatre of sports. Far from being a merely 'secondary' sphere of life, sports play a vital role in the lives of modern individuals who are left at liberty to fill the otherwise empty hours in their days: playing and watching sport games has become one of the most dominant ways in which people tackle the problem of 'free time.' Evidently, many people find it deeply gratifying to passionately immerse themselves in (the vicarious spectation of) sports: microcosms of purposeful, rule-bound, physical and direct action, allowing individual participants to play roles of decisive importance. Participants can feel vital contributors to the achievement of clear-cut goals (such as hoops or finishing lines), and perhaps even heroicly important, leading to great outbursts of passion (within, of course, the bubble of the humanly fabulated, self-imposed game). I explored how sports is a moral theatre and indeed an existential nursing room. Among other things, it is a practice wherein people can try to discover what their innate, natural potential is and how that can be cultivated. This makes up the core of the Olympic (and anti-doping) 'spirit of sport' as stated in the latest World Anti-Doping Code: *"the essence of Olympism [is] the pursuit of human excellence through the dedicated perfection of each person's natural talents."* (World Anti-Doping Agency 2015: 14). This spirit grounds WADA's categorical animosity towards doping – the artificialization of bodily substrates within the context of sports. However, in probing the ultimate justifications of an intrinsically pro-talent, anti-doping spirit of sport, I have come to conclude that none of them are convincing. More than that, some of these justifications are *themselves* morally troubling. For instance, the cult of talent and disdain for doping may root in the hereditarian aristocratic thought of Baron Pierre de Coubertin, who said of the Modern Olympics he founded that *"it constitutes an aristocracy, an elite [...] determined purely by the physical superiority and muscular potentialities of the*

individual, enhanced to some degree by his will power and his training." (Coubertin 1956 [1935]: 52-53) Alternatively, it may root in animalistic urges to scan each other for proxies of hereditary fitness – another way to valorize people based on their meritless birth privilege, and to be outraged by those who would mimic hereditary potential through doping. Finally, a categorical pro-talent, anti-doping ethic may root in creationist notions where each must keep to the way she was created. This would again support a spirit of sport in which the playing field should be kept unlevel in favour of the talented – a spirit more of 'may the blessed man win' than one of 'may the best man win.' Based on these 'demasqués' and assorted arguments, I concluded that there is nothing morally wrong with (athletic) PSS in itself, and that instead, there can be something morally wrong with too vehement valorisations of natural talent. However, I also concluded that this does not make it *nonsensical* to organize one's sporting life, and one's life in general, around the virtuous perfection of natural talent. For instance, in the spirit of satisficing with what is available by default, and of going with the flow of one's deeply ingrained dispositions, living a talent-driven, talent-bound life can be a wholesome way to live out one's days. Of course, for many, it won't – such as for those who find no satisfactory talent within themselves, for those who are alienated by certain aspects of their default nature, or for those who are eager to explore the potential for bodily virtuosity made possible by new PSS techniques. Such exploration can be a perfectly virtuous undertaking, and indeed it can be a highly dignified one. *In extremis*, playing self-made games with a partially self-made body testifies of the ultimate circularity and absurdity of human existence, where we have to contrive a sense of purpose and find filler for our hours by ourselves. In that sense, doping is the ultimate narcissistic insult. Given that sports is also a practice of self-inflicted pain in order to learn how to accept and overcome suffering, it makes for an excellent moral theatre in which to testify of this 'foundationless freedom' of ours, burn off all vanities about true purpose and necessary work, and learn to live a life as a *Homo ludens.*

However, even for those who can make amends with how technological enablement condemns us to become increasingly playful, useless Grasshoppers instead of laborious, useful Ants (Suits 2014 [1978]), there is still a second problem to fend with that is intrinsic to PSS: how to *manage* a life lived in 'relentlessly responsibility' over one's own constitution, as well as over that of the children one would freely bring into being? In Chapters 4 and 5, I examined how the *"explosion of responsibility"* (Sandel 2007: 87) brought on by PSS operates in two particular contemporary cases.

In the group paper that is Chapter 4, we discussed the possibility to generate deep changes in the intimacy of one's mental life in the context of paraphiliacs who face the option of chemical castration techniques to free themselves of undesired desires (socially undesired, and often also undesired by the paraphiliac himself). Given the intimacy of these PSS techniques, most commentators argue that they must never be imposed by force on an individual, for example by a criminal justice system that would

have sex offenders chemically castrated against their will. Such intimate decisions should be left to the personal discretion of the paraphiliac in question. Honoring this basic moral stand, we found that even within the constraints of criminal justice procedures in which a sex offender would have to choose between either CC or incarceration, the offer of CC can be made without compromizing the sex offender's capability to make this choice in an adequately uncoerced way. As such, the situation would be one in which the sex offender is left to deliberate freely and informedly on the contents of his mind and body in this regard. Apart from the pressure coming from the alternative of incarceration, what will make the choice difficult in these cases will then often be practical considerations concerning disproportionate side-effects of CC, its insufficient efficacy, the difficulty of sustained compliance and so forth. There might also be more principled concerns about the authenticity of this kind of self-change and about problems of identification between the pre- and post-procedure person. However, in these particular cases of paraphiliacs, authenticity and identity issues are likely to be resolved by strong reasons of morality, and depending on the paraphiliac in question often strong reasons of psychological wellbeing as well, leading to a rejection of the biopreservationist option of preserving one's default character as a paraphiliac. For some, this expansion of one's field of personal responsibility will be an open-and-shut case of taking that responsibility, reducing one's paraphilia and hopefully living substantially happier (and freer) life.

The fifth and final chapter dealt with the expansion of personal responsibility in a completely different sphere where the moral and psychological pressures do not push so strongly in one direction to 'simplify' the choice: preconception care. A growing array of PCC interventions is putting potential parents in a position to decrease the probability of adverse pregnancy outcomes, depending on their acts and abstentions. There are strong moral reasons to care about the well-being of future people, *a fortiori* that of the future people one will oneself bring into being. Considerations of procreative beneficence – which we specified as preconception beneficence – can therefore make it the moral responsibility of potential parents to do what they can prior to conception to avoid adverse pregnancy outcomes. However, the sphere of potential preconception agency can expand dramatically in terms of *how many* PCC acts and abstentions potential parents have to take into account, *how soon* they should begin to assume preconception responsibilities (*in extremis,* as soon as they near fertility), as well as *how obligatory* each particular PCC intervention is. To help settle the way personal responsibility is ascribed to different kinds of 'potential parents,' a preliminary framework was developed and applied it to the cases of avoiding obesity, taking folic acid in time, and going in for genetic screening. I argued against excessive claims as if the only responsible way to procreate anno 2015 would be to use artificial alternatives to coitus between unscreened partners. However, I had to acknowledge the existence of a 'capability imperative' that obliges us to face up to the expansion of responsibility that

inadvertedly comes with the expansion of our sphere of agency. Where impotence and ignorance is lifted, responsibility expands. Although this comes with an expanded burden of responsibility and justification, that psychological burden cannot in itself be invoked to deny one's responsibility.

Appeals to the goodness of the default, natural way of procreating, and of doing things in general, will require further justification. In justifying one's preference for letting nature take its course, holding out *"the blessing [of not being] wholly responsible for the way we are"* (Sandel 2007: 87) is not a valid argument. Instead, it seems to provide rhetorical cover for the desire to avoid facing up to one's personal responsibility over deeply thorny matters, as well as for the desire to deny a *"naturalist, Godless universe [in which our existence is] absolutely unbidden"* and, from the point of view of nature, *"simply occurs, without meaning or purpose."* (Kahane 2011: 357; Nagel 1986). Psychologically understandable as such a desire for responsibility-outsourcing may be, it is not morally defensible to give in to it as long as a normal person of reasonable prudence can be expected to take on the responsibilities in question. Satisfying a desire for transcendent purpose, moreover, should ideally not carry the cost of self-deception.

If my general analysis is not too wide of the mark, then the 'enhancement enterprise' and PSS in general would indeed be intrinsically troublesome, as many biopreservationist critics contend. Resentable as it may be, we find ourselves 'foundationlessly free' in the sense that we have to establish and endorse a normative foundation for our own life by ourselves. Adding injury to narcissistic insult, we also become 'relentlessly responsible' in the sense that that we find ourselves increasingly stripped of exculpatory impotence and ignorance about our options. We come to live in a state of chronic apprehension that there might be something we can do/could have done. The excuses we have left are moral fatigue, the remainder of our impotence and the lingering shroud of ignorance. Where technophile enthusiasts fail to appreciate the troubles of the protean predicament and principled biopreservationists believe they can resolve them, I had to draw the conclusion – at once tragic and ironic – that they cannot be helped. Indeed, we must not *"remake nature, including human nature, to serve our purposes and satisfy our desires"* (Sandel 2007: 26–27) in self-deceptive ways. It is for that very reason that I cannot follow Sandel's own suggestion that we should (mis)construe ourselves as creatures of nature, God or fortune to enjoy the (false) comforts of believing there is a given meaning to our lives and that our levels of personal responsibility can be substantially relaxed by letting nature take its default course. *"An untroubled soul in a troubling world is a shrunken human being"* (Kass 2003), and the troubles of protean freedom are tragically ours – increasingly acutely so. Solving them seems impossible without compromising our capacity for lucid self-awareness. Instead of trying to deny or solve the problem of our deep, burdensome and rather absurd circularity, I propose we focus our energy on coping with it. We can do so through

engaging story-telling, passionate game-playing and compassionately helping each other along – all the while keeping our minds open to the unbidden realities of our freedom, our increasing instrumental superfluity, and the sublimity of senseless nature.

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